

KTSE (Kutchi Talent Search Examination) – 2018 (Nanji Monji Dedhia Charitable Trust)

Name: _____ ID No.: _____

SET B

Instructions

- The exam duration is **120 minutes (2 hours)**
- There are 80 questions in two sections for a total of 100 marks
 - SECTION 1: 1 marks each (60 questions adding up to 60 marks)
 - SECTION 2: 2 marks each (20 questions adding upto 40 marks)
 - There is NO negative marking
- The rough work should be done on separate paper provided.

- **Answer Sheet**
 - All questions are multiple choice. With a **black pen**, fill the correct answer in the answer sheet separately provided.
 - At the top, put down your name and the ID (registration) number
 - There are two sets. Set A and Set B. The order of questions are different in each. **Please ensure that you correctly fill in circle A or B** depending on which question paper you get. It is important to fill this right so that the computer checks against the right answer keys.
 - Fill in the ID number at the right also. Make sure that the ID number fields are filled properly (one in each column and not all in one column), and also written in the boxes above. Your ID number is the registration number given to you by KTSE. **Ensure that 3 digits are filled in. For example, if KTSE ID is 3, then put 003 as your ID**

- **Results**
 - **The results will be announced by Monday, 11th June**
 - Marks for everyone by ID number will be put up on the KTSE website, nmdedhiatrust.com The correct answer list will also be put up
 - **Only the top 40 will called for the next interview round, that will be held on Saturday, 16th June.**
 - Please do NOT call. Check the website nmdedhiatrust.com Only the top 40 will get email and/or SMS informing about interview time
 - Round 1 (this aptitude test) will have 80% weightage and the interview will have 20% weightage while deciding the final 20 scholars. The award function will be held on 24th June

ALL THE BEST !!

SECTION 1

ALL QUESTIONS IN THIS SECTION ARE OF 1 MARKS

Q1: (1 mark) The cost price of 36 books is equal to the selling price of 30 books. The gain percentage is ?

- A: 20% B: 16 % C: 18% D: 82 % E: 120%

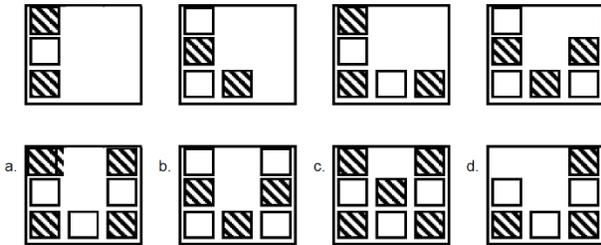
Q2: (1 mark) The average income of 40 persons is ₹4200 and that of another 35 persons is ₹4000. The average income of the whole group is _____ . ?

- A: ₹4100 B: ₹ 4106 $\frac{1}{3}$ C: ₹ 4106 $\frac{2}{3}$ D: ₹ 4108 $\frac{1}{3}$
 E: ₹ 4208 $\frac{1}{3}$

Q3: (1 mark) A certain distance is covered by a cyclist at a certain speed. If a jogger covers half the distance in double the time, the ratio of the speed of the jogger to that of the cyclist is ?

- A: 1 : 4 B: 1 : 2 C: 2 : 1 D: 1 : 1 E: 4 : 1

Q4: (1 mark) Which figure is next in the series ?



- A: a B: b C: c D: d E: none of the above

Q5: (1 mark) Give the number that corresponds with the question mark (?) in the following addition problem:

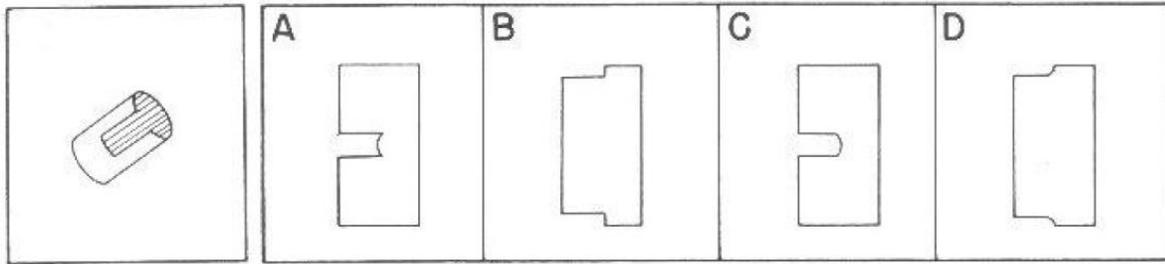
$$\begin{array}{r}
 68 \\
 + 7? \\
 \hline
 1?2
 \end{array}$$

- A: 1 B: 2 C: 3 D: 4 E: 6

Q6: (1 mark) Empty is to Full as Wet is to ?

- A: Damp B: Soaked C: Dry D: Water E: Rain

Q7: (1 mark) Which of the following will fold to give the first object ?



A: A B: B C: C D: D E: all of the above

Q8: (1 mark) A pie is cut so that one piece, which is one quarter of the pie, is twice as large as each of the other pieces. Into how many pieces is the pie cut?

A: 3 B: 4 C: 6 D: 7 E: 8

Q9: (1 mark) How many soldiers are there in a group of 27 sailors and soldiers if there are four fifths as many sailors as soldiers ?

A: 15 B: 12 C: 10 D: 8 E: 7

Q10: (1 mark) A team of clothing workers had an output of 1,000 uniforms per week. This output was increased by 20%, which demanded an increase of 50 uniforms per worker. How many workers are there on the team ?

A: 4 B: 5 C: 6 D: 7 E: 10

Q11: (1 mark) In a certain code language, '493' means 'Friendship Big Challenge', '961' means 'Struggle Big Exam' and '178' means 'Exam Confidential Subject'. What does 'Confidential' stand for?

A: 7 or 8 B: 7 or 9 C: 8 D: 8 or 1 E: 1 or 7

Q12: (1 mark) What will naturally follow in the sequence below

C4X, F9U, I16R, ___?

A: K25P B: L25P C: L25O D: L27P
E: M25O

Q13: (1 mark) Among Arjun, Vinod, Shiva, Ashish and Aravind, Arjun is taller than Vinod but shorter than Shiva. Vinod is taller than only Aravind. Shiva is not the tallest. If they stand in the order of their heights, who will be in the middle ?

A: Vinod B: Aravind C: Arjun D: Ashish
E: Shiva

Q14: (1 mark) If P denotes +, Q denotes - , M denotes \times and L denotes \div , then which of the following statements is true ?

- A: $32P8L16Q4 = 3/2$ B: $6M18Q26L13P7 = 173/13$ C: $11M34L17Q8L3 = 38/3$
D: $9P9L9Q9M9 = -71$ E: None of the above are true

Q15: (1 mark)

When they heard news of the hurricane, Maya and Julian decided to change their vacation plans. Instead of traveling to the island beach resort, they booked a room at a fancy new spa in the mountains. Their plans were a bit more expensive, but they'd heard wonderful things about the spa and they were relieved to find availability on such short notice.

Find the statement that must be true according to the above information.

- A: Maya and Julian take beach vacations every year.
B: The spa is overpriced
C: It is necessary to book at least six months in advance at the spa.
D: Maya and Julian decided to change their vacation plans because of the hurricane.
E: All the above are true

Q16: (1 mark) In the following question, choose the one which can be substituted for the given words/sentence.

One who runs away from justice or the law is a

- A: Traitor B: Captive C: Refugee D: Fugitive
E: All of the above

Q17: (1 mark) The amount of ₹950 is divided among A, B and C in such a manner that the ratio of the amount of A to that of B is 3 : 7 and the ratio of the amount of B to that of C is 6 : 5. The amount of money received by B is: ₹_____ ?

- A: 420 B: 350 C: 180 D: 120 E: 450

Q18: (1 mark) Ram travelled 1200 km by air which formed $\frac{2}{5}$ th of his trip. He travelled $\frac{1}{3}$ rd of the trip by car and the rest by train. The distance (in km) travelled by train was ?

- A: 720 B: 1800 C: 800 D: 480 E: 1600

Q19: (1 mark)

Given the following statements, which conclusions follow from it
Statements:

- i. All roses are jasmines.
- ii. All jasmines are orchids.
- iii. Some orchids are marigolds.

Conclusions:

- I. Some marigolds are roses.
- II. Some orchids are roses.

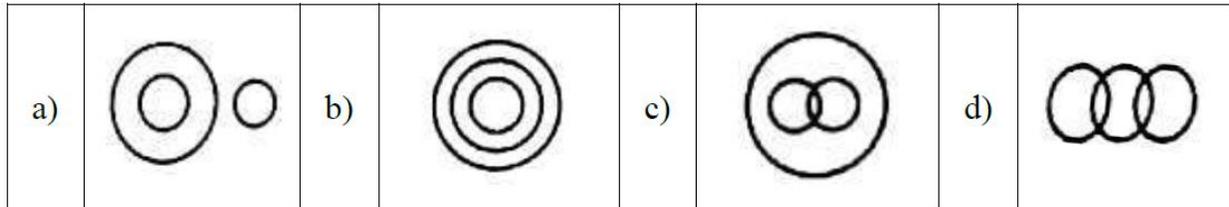
A: only conclusion I follows
 C: either conclusion I or II follows
 E: both conclusions I and II follow

B: only conclusion II follows
 D: neither conclusion I or II follows

Q20: (1 mark) Find the next element in the series 25, 29, 85, 89, _____ ?

A: 105 B: 109 C: 125 D: 135 E: 145

Q21: (1 mark) Which of the following diagrams indicates the best relation between Boys, Girls and Students?



?

A: a B: b C: c D: d E: All the above are possible

Q22: (1 mark) If MAGIC is coded as PXJFF then how will LEASH be coded ?

A: PBDVD B: OBDVL C: OHEOK D: OBDPK
 E: OBDOK

Q23: (1 mark) During a sunny summer day at 6 pm, two friends A and B were talking to each other face to face. If B's shadow was exactly to A's left side, then the direction in which A is facing is

A: North B: South C: East D: West E: none of the above

Q24: (1 mark) In an examination, a student scores 2 marks for every correct answer and loses 1 mark for every wrong answer. If he attempts all 90 questions and secures 42 marks, then the number of questions he attempted correctly is ?

A: 74 B: 44 C: 64 D: 46 E: 42

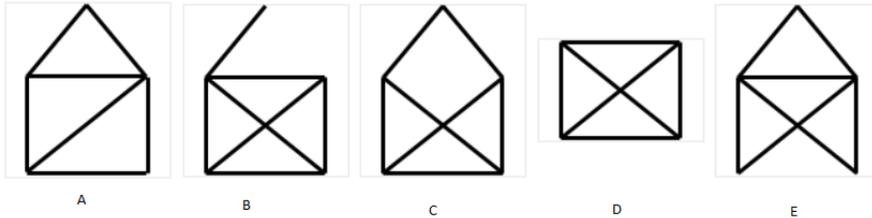
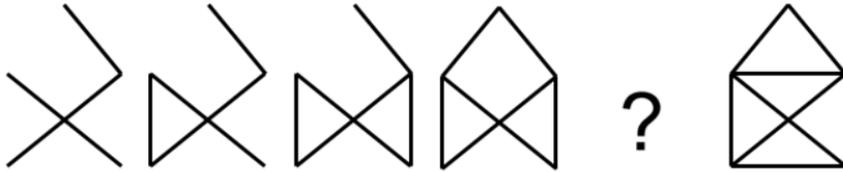
Q25: (1 mark) In a row of students, if A is 12th from the either end of the row, then the number of students in the row is:

A: 23 B: 24 C: 25 D: 20 E: 26

Q26: (1 mark) 8 : 65 :: 13 : ?

A: 168 B: 27 C: 170 D: 169 E: 144

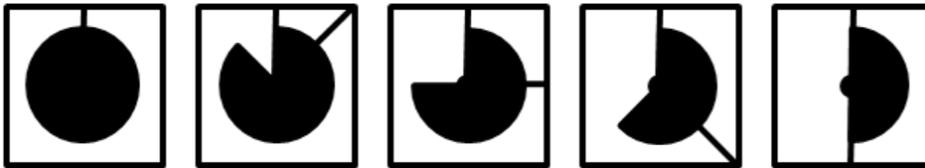
Q27: (1 mark) Choose the image that completes the pattern:



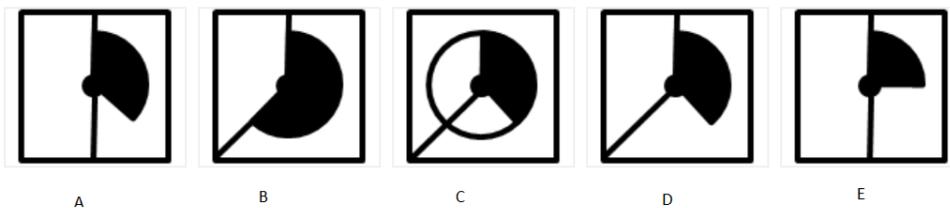
A: A B: B C: C D: D E: E

Q28: (1 mark) Choose the image that comes next in the sequence

Sequence



Which image will come next



A: A B: B C: C D: D E: E

Q29: (1 mark) My successor's father is my father's son. and I don't have any brothers or sons. Who is my successor?

A: Nephew B: Niece C: Daughter D: Myself E: Sister

Q30: (1 mark) Two people were walking in opposite directions. Both of them walked 6 miles forward then took right and walked 8 miles. How far is each from starting positions?

- A: 14 miles and 14 miles B: 10 miles and 10 miles C: 6 miles and 20 miles
D: 20 miles and 8 miles E: 2 miles and 2 miles

Q31: (1 mark) The challenges associated with preventing, managing and resolving natural resource induced conflicts may well come to define global peace and security in the 21st century. Global trends such as demographic changes, increasing consumption, environmental degradation and climate change, are placing significant and potentially unsustainable pressures on the availability and usability of natural resources such as land, water and ecosystems.

Which among the following is the most logical inference of the above passage

- A: Today, there is abundance of natural resources in the countries of the world
B: Environmental damage leading to marginalization of local populations is a pressing issue today
C: There is a need to enhance understanding of the link between resources and conflict
D: Global peace and security will be threatened by availability and access to natural resources
E: Global warming causes climate change

Q32: (1 mark) The pen is indeed mightier than the sword, which is why writers are facing the ire of powerful autocratic leaders. Gone are the days when mass media was celebrated as the fourth pillar of the society. Of late, the world has witnessed several incidents of an unprecedented onslaught on journalism by conniving politicians and governments in quick succession.

Which among the following is the most logical inference of the above passage

- A: Publishing the truth is predominantly the prerogative of writers
B: Journalism is paying a heavy price for its own power
C: Politicians and governments do not intend to muzzle the independent media
D: Journalists create a negative news bias to gain public sympathy
E: Journalists are always attacking politicians and government

Q33: (1 mark) Amar, Akbar, Anthony, Karan and Arjun are five brothers aged in that order with Amar being the eldest. Each of them had to carry a bucket of water from a well to their house. Their bucket capacities were proportional to their ages. While returning, equal amount of water got splashed out of their buckets. Who lost the maximum amount of water as a percentage of the bucket capacity ?

- A: Amar B: Anthony C: Karan D: Arjun
E: All lost the same percentage

Q34: (1 mark) The sum of two numbers is 80. If the larger number exceeds four times the smaller by 5, what is smaller number?

- A: 15 B: 20 C: 25 D: 30 E: 35

Q35: (1 mark) If every side of an equilateral triangle is doubled, then the area of new triangle becomes k times the area of the old one. What is ' k ' equal to ?

- A: $\sqrt{3}$ B: 2 C: 4 D: 8 E: 1

Q36: (1 mark) What is the next term that comes in the sequence below

11 12 15 21 31 46 ?

- A: 60 B: 62 C: 63 D: 65 E: 67

Q37: (1 mark) Four years ago, the Father's age was three times the age of his son. The total of the ages of the father and the son after four years, will be 64 years. What is the father's age, in years, at present ?

- A: 32 B: 36 C: 40 D: 42 E: 44

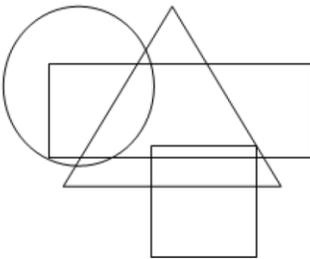
Q38: (1 mark) A man fixed an appointment to meet his manager. The manager asked him to come two days after the day before the day after tomorrow. Today is Friday. When did the manager expect to meet him ?

- A: Monday B: Tuesday C: Wednesday D: Thursday
E: Friday

Q39: (1 mark) If $(m + 3)$ is an even integer, which of the following is always an odd integer ?

- A: $5m + 19$ B: $(m+3)/2$ C: $2m + 7$ D: $m + 1$
E: $(m + 3)(m + 4)$

Q40: (1 mark) Based on the information below,



The Rectangle represents students studying Mathematics.
The Square represents students studying Physics.
The Circle represents students studying Chemistry.
The Triangle represents students studying English.

Which of the following is true ?

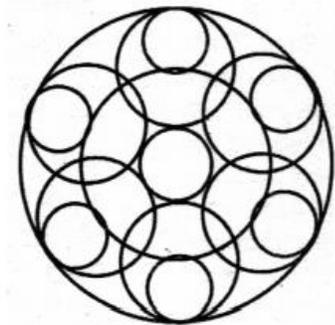
- A: All students studying Chemistry also study English.
B: There are some students who study all four subjects.
C: All students who study Chemistry study at least one more subject.

D: There are some students who study all subjects except Chemistry.
 E: Some students who study Mathematics and Chemistry also study Physics.

Q41: (1 mark) In South-East becomes North; and North-East becomes West; then West becomes

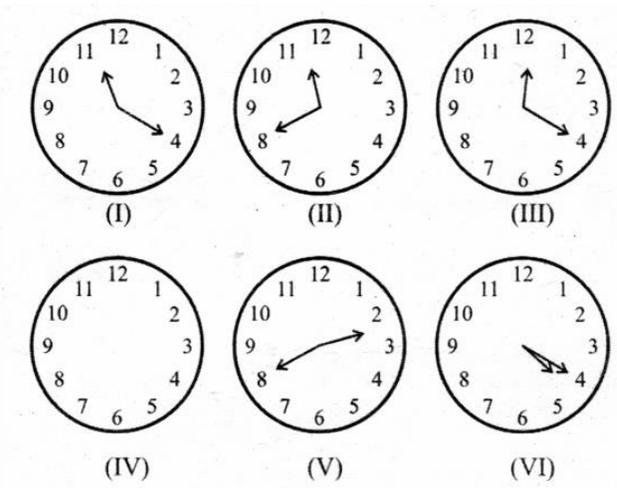
- A: North - East B: South - East C: North - West
 D: South - West E: East

Q42: (1 mark) What is the total number of circles in the figure given below?



- A: 12 B: 13 C: 14 D: 15 E: 16

Q43: (1 mark) What time should the (IV) clock show ?

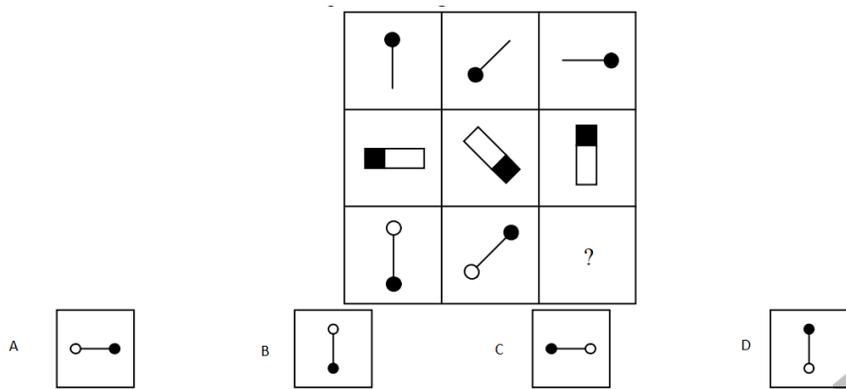


- A: 1:00 B: 1:20 C: 1:40 D: 2:00 E: 2:10

Q44: (1 mark) If 25th date of any month is Tuesday, then which day will be on 2nd date of that month ?

- A: Sunday B: Monday C: Tuesday D: Wednesday
 E: Thursday

Q45: (1 mark) Which is the alternative that completes the figure matrix ?



A: A B: B C: C D: D E: E

Q46: (1 mark) The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age, in years, of the youngest child??

A: 4 B: 5 C: 6 D: 7 E: 8

Q47: (1 mark) A snail is at the bottom of a 20 meters deep pit. Every day the snail climbs 5 meters upwards, but at night it slides 4 meters back downwards. How many days does it take before the snail touches the top of the pit?

A: 15 B: 16 C: 18 D: 19 E: 20

Q48: (1 mark) Radha moves towards South-east for a distance of 7 km, then she moves towards West and travels a distance of 14 km. From here, she moves towards North-west for a distance of 7 km and finally she moves a distance of 4 km towards East and stands at that point. How far, in km, is the starting point from where she stands?

A: 0 B: 4 C: 7 D: 10 E: 14

Q49: (1 mark) Which of the following alternatives will fit in place of 'M'?

7	3	6	2
2	8	5	4
1	1	2	4
4	2	1	M

A: 3 B: 4 C: 5 D: 6 E: 7

Q50: (1 mark) Here are some words translated from an artificial language. *gorbflur* means fan belt

pixngorbl means ceiling fan

arthtusl means tile roof

Which word could mean "ceiling tile"?

A: gorbtlusl

B: flurgorbl

C: arthflur

D: pixnarth

E: gorbriarth

Q51: (1 mark) A tank contains a mixture of 200 litres of wine and water. 20% of the mixture is water and the remaining is wine. How many litres of water should be added to the mixture to increase the percentage of water to 25% in the new mixture?

A: 10

B: 13.33

C: 15

D: 16.66

E: 19.33

Q52: (1 mark) . _____ is to JUICE as WHEAT is to BREAD

A: Water

B: Pitcher

C: Supermarket

D: Soda

E: Orange

Q53: (1 mark) The volume of a rectangle prism is 100 cubic inches. Which of the alternatives is its greatest possible length ? Assume that the dimensions of the prism are integer inches

A: 10

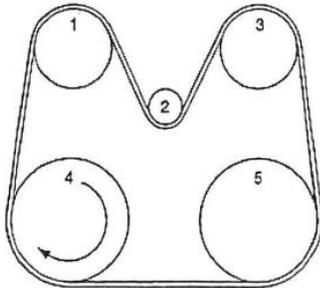
B: 33.33

C: 50

D: 100

E: None of the above

Q54: (1 mark) Which wheels are turning in the same direction as wheel 4



A: 1 only

B: 1, 3 and 5

C: 1 and 3

D: 5 only

E: 2 only

Q55: (1 mark) The town of Paranda is located on Green lake. The town of Akram is West of Paranda. Tokhada is East of Akram but West of Paranda. Kakran is East of Bopri but West of Tokhada and Akram. If they are all in the same district, which town is the farthest West ?

A: Paranda

B: Kakran

C: Akram

D: Tokhada

E: Bopri

Q56: (1 mark) One of the sequences below is different in pattern than the others. Which one is it ?

A: GEDC
E: ZWVU

B: AZYX

C: PNML

D: USRQ

Q57: (1 mark) How many '6' s are there in the following sequence which are followed by 3 and preceded by 8 ?

9 4 8 6 3 2 7 1 8 6 8 9 8 1 3 6 8 9 7 8 6 3 1 3 6 8 4 3 2 3 5

A: None

B: 1

C: 2

D: 3

E: 4

Q58: (1 mark) First day of the month is Wednesday and last day of the same month is Tuesday then which one can be that month?

A: January

B: February

C: March

D: August

E: Can be any month

Q59: (1 mark) A cube is 6 cm in length, breadth and height. It is painted red on two opposite faces, black on the other two opposite faces and green on the left over faces. It is then cut into 216 cubes of side 1 cm. How many small cubes have no face painted?

A: 16

B: 225

C: 24

D: 64

E: 113

Q60: (1 mark) With what operators, should the symbols @ and < be replaced so that the following expression is valid.

$100 - 81 \div 27 @ 3 < 6 = 115$

A: + and -

B: x and ÷

C: ÷ and -

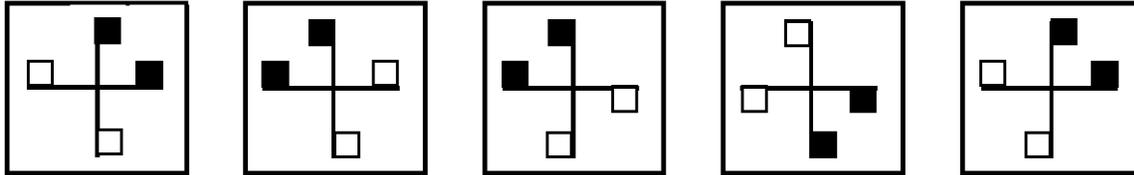
D: x and x

E: + and x

SECTION 2

ALL QUESTIONS IN THIS SECTION ARE OF 2 MARKS

Q61: (2 marks) Which figure is the odd one out ?



a.

b.

c.

d.

e.

A: a

B: b

C: c

D: d

E: e

Q62: (2 marks) Nine numbers are written in ascending order. The middle number is the average of the nine numbers. The average of the five largest numbers is 68 and that of the five smallest numbers is 44. What is the sum of all nine numbers?

A: 500

B: 504

C: 540

D: 615

E: 630

Q63: (2 marks) The benches in a classroom are arranged in rows and columns. The number of rows is 4 more than the number of columns. If each bench is seated with 5 students, there are two seats vacant in a class of 158 students. The number of rows is ?

A: 3

B: 4

C: 5

D: 6

E: 8

Q64: (2 marks) Five friends P, Q, R, S and T distribute some marbles among themselves in such a manner that P gets one less than Q, R gets 5 more than S, S gets 3 more than Q and T gets 2 less than P. Arrange the friends in the order of the number of marbles they have, from the largest to the smallest ?

A: RQSPT

B: RSQPT

C: SRQPT

D: SQ RTP

E: RPQST

Q65: (2 marks) There are 10 Red, 10 Blue, 10 Green, 10 Yellow, 10 White balls in a bag. If you are blindfolded and asked to pick up the balls from the bag, what is the minimum number of balls required to get a pair of at least one colour ?

A: 6

B: 7

C: 8

D: 9

E: 10

Q66: (2 marks) From a set of six men A, B, C, D, E, F and five women S, T, U, V, W, a squad of six is to be selected.

Some of the norms of the choice are given as below:

I. A and V go together.

II. C cannot be placed with B.

- III. U cannot go with V.
- IV. B goes with T.
- V. D and E have to be together.
- VI. W and F go together.

If both W and D are representatives of the squad and three men in all are included in the squad, the representatives of the squad other than W and D are:

- A: SVFA B: TUF E C: SUEF D: UVFE
- E: SUEA

Q67: (2 marks) Five friends I, J, K, L and M are sitting on a bench. I is somewhere to the right of J, K is sitting next to L, L is not sitting near M, M is on the left end of the bench. K is on the second position from the right. I and K are sitting together. Where is I sitting?

- A: Between J and L B: Between L and K C: Between J and K
- D: Between K and M E: Between M and L

Q68: (2 marks) There are four friends Anish, Kumar, Ramu and Navin. One of them is a hockey player and studies English and French. Anish and Kumar play basketball. Anish studies computer. Both the basketball players study physics. Navin is a badminton player. One basketball player also studies chemistry. The badminton player studies physics and commerce. All the friends study two subjects each and play one game each. Who studies chemistry ?

- A: Anish B: Kumar C: Ramu D: Navin
- E: Both Anish and Kumar

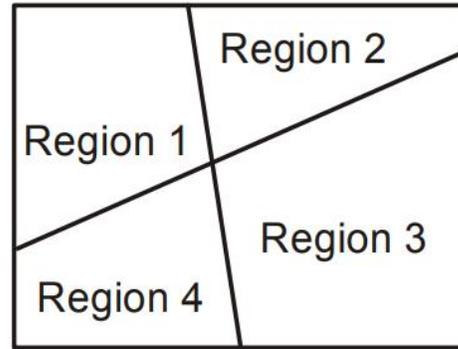
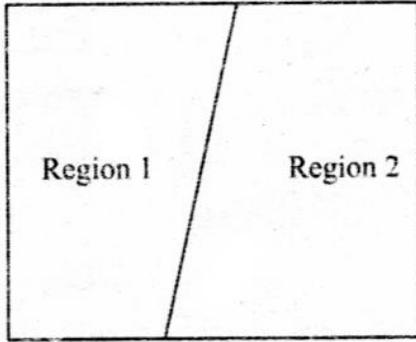
Q69: (2 marks) A boat started its journey downstream at 8:00 AM. It reached a point at 1:00 PM which is 25 km away from the starting point, while for covering the same distance upstream it takes 6 hours. What is the speed of the boat in still water ?

- A: 4.65 km/h B: 5 km/h C: 4.95 km/h D: 4.58 km/h
- E: 0.41 km/h

Q70: (2 marks) The six members of a family S, T, U, V, W and X are travelling together. T is the son of U but U is not the mother of T. S and T are a married couple. W is the brother of U. V is the daughter of S. X is the brother of T. Which of the following is a pair of females?

- A: SW B: SV C: TV D: VX E: ST

Q71: (2 marks) One line forms two regions in a plane. Similarly, two lines in a plane can form a maximum of four regions. These are shown in the figures below:



- A: 7 B: 8 C: 10 D: 11 E: 12

Q72: (2 marks) Three persons A, B and C wore shirts of black, blue and orange colours (not necessarily in that order) and pants of green, yellow and orange (not necessarily in that order). No person wore shirt and pant of the same colour. Further it is given that

1. A did not wear shirt of black colour
2. B did not wear shirt of blue colour
3. C did not wear shirt of orange colour
4. A did not wear pants of green colour
5. B wore pants of orange colour

What were the colours of the pants and shirt worn by C, respectively?

- A: Orange and black B: Blue and Green C: Yellow and blue
 D: Yellow and black E: Green and blue

Q73: (2 marks) A shopkeeper was selling rice at a profit of 20%. However, he was unaware of the fact that his weighing machine was tampered and showed 950 gm when the actual weight was 1 kg. Find his actual profit % ?

- A: 14% B: 15% C: 26.32% D: 14.29% E: 25%

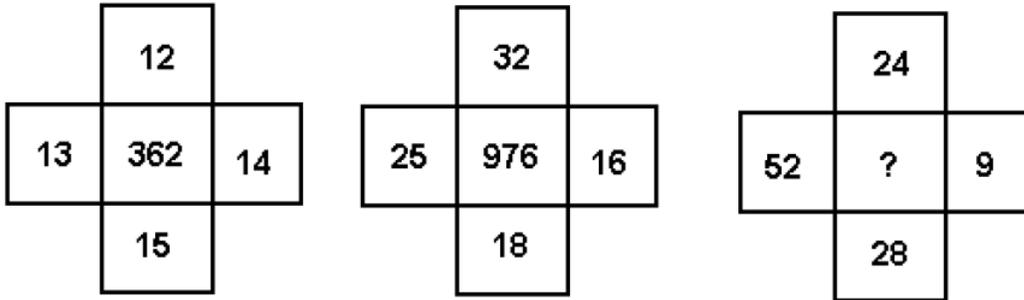
Q74: (2 marks) A mobile app was tested 600 times before its release. The testing was done in 3 stages of 200 tests each. The app failed 30 times in Stage I, 24 times in Stage II, 16 times in Stage III, 12 times in both Stage I and Stage II, 14 times in both Stage II and Stage III, 8 times in both Stage I and Stage III, and 8 times in all the three stages. How many times the app failed in a single stage only ?

- A: 24 B: 70 C: 26 D: 52 E: 60

Q75: (2 marks) In how many different ways can the letters of the word 'PARTY' be arranged ?

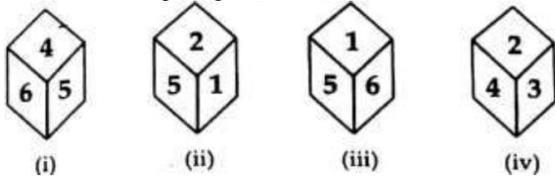
- A: 25 B: 60 C: 120 D: 2005 E: 2400

Q76: (2 marks) Which number can substitute the question mark ?



- A: 950 B: 1140 C: 2666 D: 2878 E: 3476

Q77: (2 marks) Which number is on the face opposite 4, if the four different positions of a dice are as shown in the figure given below



- A: 6 B: 5 C: 3 D: 2 E: 1

Q78: (2 marks) A cube of side 4cm is painted with 3 colors red, blue and green in such a way that opposite sides are painted in the same color. This cube is now cut into 64 cubes of equal size. How many cubes have only one side painted.?

- A: 36 B: 54 C: 24 D: 32 E: 48

Q79: (2 marks) At the time half past three, the angle between hour and minute hands of the watch, in degrees, will be

- A: 75 B: 60 C: 90 D: 105 E: 45

Q80: (2 marks) A commercial flower grower raises flowers in each of the three growing seasons every year-spring, summer and winter-with the year beginning in spring. Exactly seven different kinds of flowers- A,B,C,D,E,F and G-are grown every year. Each kind of flower is grown at least once a year. The flowers are grown according to the following rules:

- B can be grown in a growing season only if A is grown in the preceding season.
- No more than three different kinds of flowers are grown in any one growing season.
- No kind of flower can be grown in two seasons in a row.
- A can be grown neither in the winter season nor in the same growing season as E or F.
- C and D are always grown in the same growing season.

If G is grown in the spring and E in the summer of one year, then which of the following can also be grown in the summer?

A: F

B: G

C: C

D: D

E: A