

**GPATE ENTRANCE TEST (SAMPLE PAPER)**

**APPROPRIATION OF MARKS AND TIME**

**Time: 60 minutes**

<b>Section</b>	<b>No. of Questions</b>	<b>Marks per question</b>	<b>Total Marks per Section</b>
Logic	5	2	10
Diagrammatic Reasoning	5	4	20
Numeracy	10	3	30
IQ	10	2	20
General Awareness	5	2	10
Aptitude	15	2	30

**Note:** The answers are highlighted in yellow

**LOGIC (50 x 2 marks = 10 marks.)**

1. There are six people T, U, V, W, X and Y. Two of them are from England, one is from America, one is from Australia, one is from Libya and one is from India. T who is from Libya, is married to W. X is not from England. None of the female is from Australia or America or Libya. V who is from America is married to Y, who is from India. Among the six people there are two married couples. What is the gender of W and to which country does he/she belong?

- (A) W is a male from Australia  
(B) W is a female from Australia  
(C) W is a male from England  
(D) W is a female from England

2. A cube has a side of 4cm. The cube is painted red on all six sides. This cube is then cut into 125 smaller cubes. How many of these smaller cubes will have only one of their sides painted red

- (A) 27 cubes  
(B) 54 cubes  
(C) 81 cubes  
(D) 108 cubes

3. Sheila is hosting a party at our house. All guests are going to be seated in chairs around a large perfectly circular table at a distance of 3 meter from each of its adjacent chairs. All the guests arrive at a separate time and each guest takes a chair to the immediate left of the last guest who arrived. If Rani who was the sixth guest to arrive is sitting diametrically opposite to Sunita who was the fourteenth guest to arrive how many people were sitting at the round table

- (A) 12  
(B) 16  
(C) 18  
(D) 20

4. A book seller has to arrange five magazines on his news stand from left to right. The five magazines are America Daily, Music and More, Science, Readers Digest and Sports Illustrated. America Daily and Science cannot be placed next to each other as they are published by competing publishers. The sports illustrated and the Readers Digest must always be next to each other as there is a special discount if both the magazines are bought together. It is known that the Music and More Magazine is not kept next to the Readers Digest. If the Sports Illustrated is kept second from left and America Daily is kept second from right then which magazine is kept on the extreme right?

- (A) Readers Digest
- (B) Science
- (C) Music and More
- (D) Cannot be determined

5. A, B, C, D, E, F, G, H, I and J are students at ABC school. A beach volleyball tournament is coming up and a team of three students must be selected based on the following conditions:

If a team includes A, then it must also include B, and vice versa.

If a team includes one among H, I, and J, then it must also include the other two.

A team must include exactly one among E, G, and H.

A team must include either C or F, but not both.

B and D cannot be members of the same volleyball team.

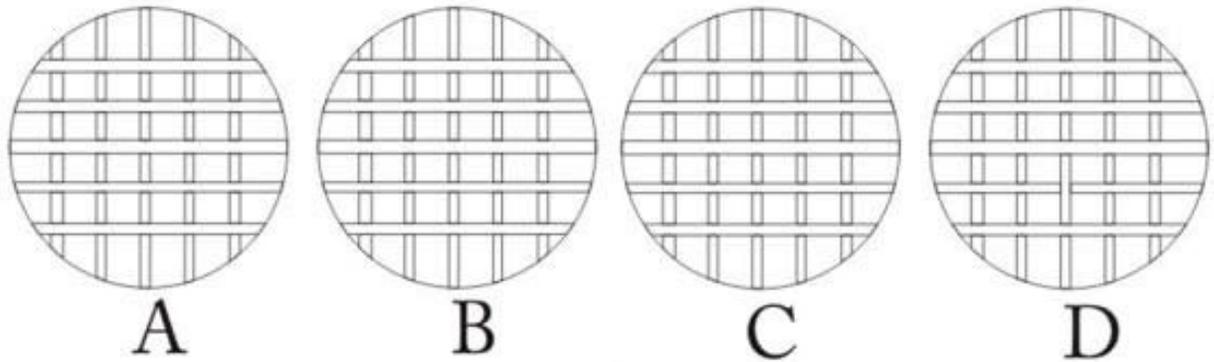
B and I cannot be members of the same volleyball team.

Which of the following students cannot be selected for the team?

- (A) F
- (B) B
- (C) C
- (D) D

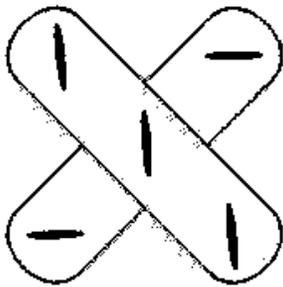
**DIAGRAMMATIC REASONING (40 x 4 marks = 16 marks)**

1. Which one of the below diagrams is the odd one out?

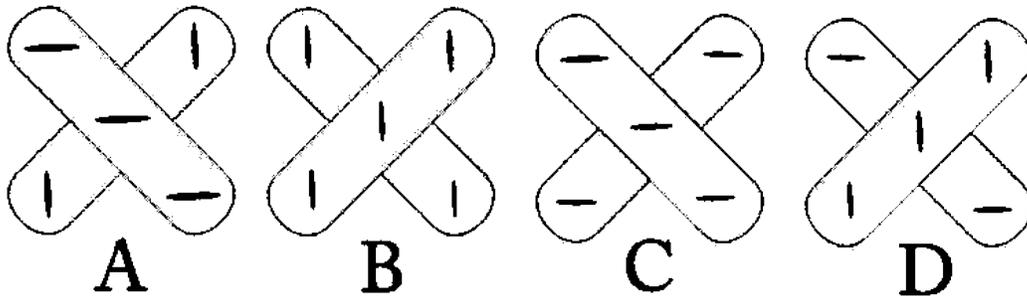


**Ans D**

2.

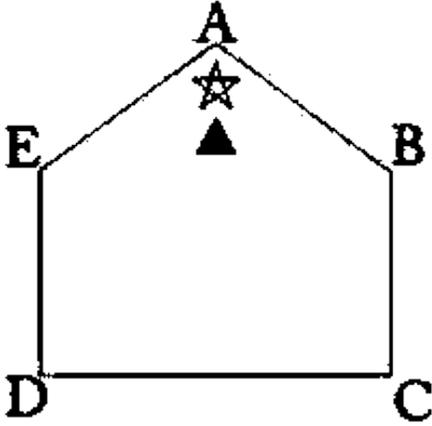


If the figure above were held in front of a mirror which out of the below options would be seen?



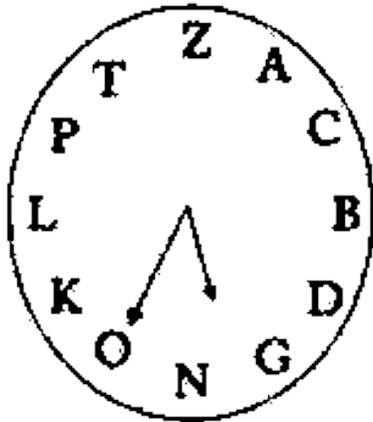
**Ans D**

3. If the star moves one position clockwise (for example from A to B) every turn and the black triangle moves two positions anti clockwise (for example from A to D) every turn at which of the five points of the below pentagon would the star and the black triangle meet again for the first time?



Ans A

4. The below given diagram is of a normal clock. If the time is turned back by 14 hours and 47 minutes where would be the hour hand (smaller arrow) and the minute hand (larger arrow) be pointing



- (A) The hour hand would be pointing somewhere between D and G and the minute hand would be pointing somewhere between L and P  
 (B) The hour hand would be pointing somewhere between C and B and the minute hand would be pointing somewhere between N and O  
 (C) The hour hand would be pointing somewhere between C and B and the minute hand would be pointing somewhere between L and P  
 (D) The hour hand would be pointing somewhere between D and B and the minute would be pointing somewhere between T and Z

**NUMERACY (60 x 3 = 18 marks.)**

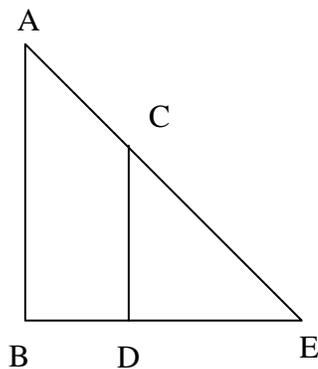
1. If  $2x + 4y = -2$  and  $y - x = -8$ , then  $x = ?$

- (A) -5
- (B) -3
- (C) 3
- (D) 5**
- (E) None of the above

2. If  $x^2 - 4x = 5$ , then which of the following is not a possible value of  $x$ ?

- I. 5
- II. 1
- III. 0

- (A) I and II only
- (B) II and III only**
- (C) I and III only
- (D) All of I, II and III
- (E) None of the above



3. In the above diagram (not drawn to scale)  $CD$  is parallel to  $AB$ . Angle  $CDE$  measures 90 degrees.  $BD = DE$ ,  $CD = 6\text{cm}$  and  $DE = 8\text{cm}$ . What is the length of  $AE$ ?

- (A) 10cm
- (B) 12 cm
- (C) 16 cm
- (D) 20 cm**
- (E) None of the above

4. If  $-1 < 2-x < 1$ , then

(A)  $-3 < x$

(B)  $x > -1$

(C)  $1 < x < 3$

(D)  $-3 < x < -1$

5. Simplify the following expression:  $\frac{12x^2-4x-5}{8x^2-6x-5}$

(A)  $\frac{x-2}{4x-3}$

(B)  $\frac{12}{8} - \frac{4}{6} - \frac{5}{5}$

(C)  $\frac{1}{4} - \frac{2}{3}$

(D)  $\frac{6x-5}{4x-5}$

(E)  $\frac{6}{4} - 1$

6. The suggested retail price, of a product is \$50 plus twice the cost,  $C$ . A person bought the product for \$270, which represents a 10% discount to  $S$ . Find the cost  $C$ :

(A) 90

(B) 96.5

(C) 100

(D) 110

(E) 125

**IO (100 x 2 = 20 marks.)**

1. Fill in the blanks to make a word:

-ela-cho-y

**Ans Melancholy**

2. Which day is two days after the day four days before the day immediately following the day two days before Saturday?

Sunday    Monday    Tuesday    Wednesday    Thursday    Friday    Saturday

**Ans Wednesday**

3. What replaces the question mark?

E 21 K 15 P 10 U ?

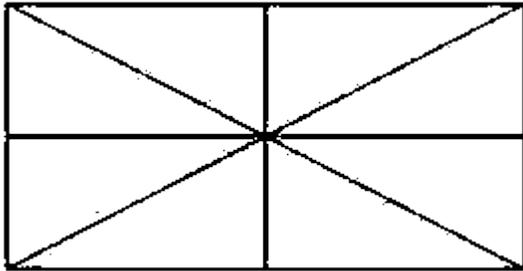
(A)4

**(B)5**

(C)6

(D)10

4. How many triangles are there in the below diagram?



(A)8

(B)14

**(C)16**

(D)24

5. In a certain language

Bas Tim Nas means girls are naughty

Tim Tas Sak means babies maybe naughty

Las Bas Zas means adults are quiet

What word in the code stands for girls?

(A)Bas

(B)Tim

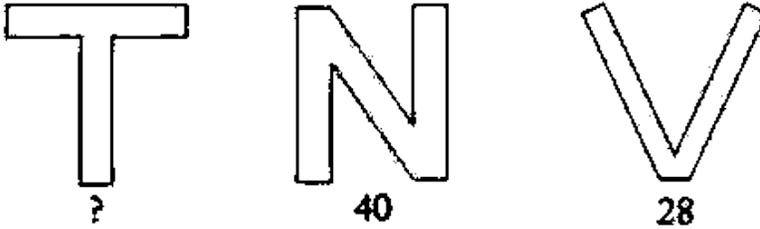
**(C)Nas**

(D)Cannot be determined

6. A rat runs 40 meters east and then turns south and walks 20 meters. It then turns west and runs 70 meters after which he runs 10 meters north. It then turns towards the East and walks 30 meters. What is the straight distance between the rat's initial and final position?

(A) 5 meters  
(B) 10 meters  
(C) 20 meters

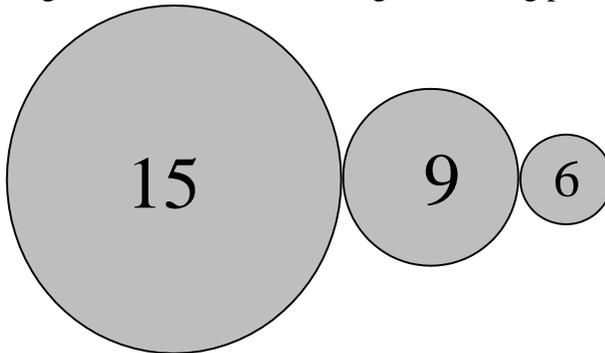
7.



What number should replace the question mark?

(A) 8  
(B) 14  
(C) 27  
(D) 32

8. Three cog wheels are in contact with each other. The number of cogs which each wheel has is shown in the diagram below. How many revolutions must the largest wheel make before all the cogs are returned to their original starting position



(A) 60 revolutions  
(B) 75 revolutions  
(C) 90 revolutions  
(D) 120 revolutions

9.

2	7	4	5	8	2	1
9	11	9	X	10	3	

What number should replace X?

- (A) 8
- (B) 10
- (C) 11
- (D) 13

10. In a jar there are 100 balls of ten different colors. There are ten balls of each color (violet, red, blue, green, yellow, orange, red, black, white and silver). What is the least number of balls that Melanie needs to pick from the jar to be sure that she has selected at least 5 black balls?

- (A) 15 balls
- (B) 55 balls
- (C) 91 balls
- (D) 95 balls

## **READING COMPREHENSION(50x4=20marks.Time15minutes)**

"Every where in the world was heard the sound of things breaking." Advanced European societies could not support long warhorse many thought prior to World War I. They were right in away. The societies could not support a long war unchanged. The First World War left no aspect of Europeancivilizationuntouchedaspre-wargovernmentsweretransformedtofighttotalwar. The war metamorphosed Europe socially, politically, economically, and intellectually.

European countries channeled all of their resources into total war which result edinenormo us social change. The result of working together for a common goal seemed to be unifying European societies. Death knocked down all barriers between people. All belligerents had enacted some form of a selective service which leveled classes in many ways. Wartime scarcities made luxury an impossibility and unfavorable. Reflecting this, clothing became uniform andutilitarian.Europeanswouldneveragaindressinfancy,elaboratecostumes. Uniforms led the way in clothing change. The bright blue-and-red pre-war French infantry uniforms had been changed after the first few months of the war, since they made whoever wore them intoexcellenttargetsformachineguns.Women'sskirtsroseabovetheanklepermanently and women be came more of a part of society than ever. They undertook a variety of obs previously held by men. They were now a part of clerical, secretarial work, and teaching. They were also more widely employed in industrial jobs. By 1918,37.6 percent of the work force in the Krupp permanents firm in Germany was female. In England the proportion of women works rose strikingly in public transport (for example, from 18,000 to 117,000 bus conductors), banking (9,500 to 63,700), and commerce (505,000 to 934,000). Many restrictions on women disappeared during the war. It became acceptable for young ,employed, single middle-class women to have the iron apartments, to gout without chaperones, and to smoke in public .It was only a matter of time before women received the right to vote in many belligerent countries.

Strong forces were shaping the power and legal status of labor unions, too. The right of workers to organize was relatively new, about half a century old. Employers fought to keep union organizers out of their plants and armed force was often used against striking workers. The universal rallying of workers towards their flag at the beginning go the warbled to wider acceptance of unions. It was more of a bureaucratic route than a parliamentary route that integrated organized labor into government, however .A long war was not possible without complete cooperation of the workers with respect to putting in longer hours and increasing productivity.

Strike activity had reach edits highest levels in history just before the war. There had been over 1,500 different works top pages in France and 3,000 in Germany during 1910.Morethana million British workers stopped at one time or another in 1912. In Britain, France, and Germany, deals were struck between unions and government to eliminate strikes and less favorable work conditions in exchange for immediate integration into the government process. This integration was at the cost of having to act more as manager so labor than as the voice of the labor. Suddenly, the strikes stopped during the first year of the war. Soon the enthusiasm died down, though. The revival of strike activity in 1916 shows that the social peace was already wearing thin.

Works top pages and the number of people on strike in France quadrupled in 1916 compared to 1915. In Germany, in May 1916, 50,000 Berlin workers held a three-day walkout to protest the arrest of the pacifist Karl Liebknecht. By the end of the war most had rejected the government offer of being integrated in the bureaucracy, but not without playing an important public role and gaining some advantages such as collective bargaining. The war may have had a leveling effect in many ways, but it also sharpened some social differences and conflicts

1. What would be an apt title for the above passage?
  - (A) World War I – a brief history
  - (B) European Living conditions during World War I
  - (C) Global Effects of World War I
  - (D) Workers Rights during World War I
2. The first line in the above passage "Everywhere in the world was heard the sound of things breaking." refers to what?
  - (A) The destruction of cities and property during World War I
  - (B) The falling of old regimes and rulers during World War I
  - (C) The changes in social and economic conditions during World War I
  - (D) The breaking up of the various treaties and pacts that had held Europe together before World War I
3. In the third paragraph what would be a probable reason for the author to say 'Europeans would never again dress in fancy, elaborate costumes'
  - (A) Due to the large number of deaths during World War I Europe's citizens as a mark of grief and respect for the dead would refrain from wearing fancy dresses
  - (B) Due to poverty and destruction caused by World War I Europe's citizens would not be able to afford fancy or elaborate dresses
  - (C) Due to improved emphasis on workers' rights during World War I production of elaborate and fancy goods which were difficult to produce was stopped
  - (D) Due to scar cities created by World War I, social changes resulted in Europe, causing European citizens to prefer simple and utility based clothing
4. Which of the following statements is not mentioned in the passage?
  - (A) During World War I the number of women in various professions such as banking and public transport went up drastically in England
  - (B) Strike activity was initially almost nonexistent during the first year of World War I
  - (C) The wages of women workers were almost on par with men workers during World War I
  - (D) Just before World War I begun strike level had reached level higher than had been seen in the past
5. What does the word "metamorphosed" mean as used in the above passage?
  - (A) changed significantly
  - (B) destroyed
  - (C) spread through
  - (D) divided

**GENERAL AWARENESS(80 x 2 = 16 marks.**

1. Which of the following nations has never won the Football World Cup?

- (A)Uruguay
- (B)England
- (C)France
- (D)Netherlands

2. Who is the current Prime Minister of Australia?

- (A)Kevin Rudd
- (B)Julia Gillard
- (C)David Cameron
- (D)John Howard

3. Which company out of the following companies was cofounded by Jack Dorsey, Evan Williams and Biz Stone?

- (A)Facebook
- (B)Ebay
- (C)Google
- (D)Twitter

4. Which of the following novels was not written by Charles Dickens?

- (A)The Adventures of Oliver Twist
- (B)War of the Worlds
- (C)David Copperfield
- (D)A Tale of Two Cities

5. Who was the President of the United States of America during the Cuban Missile Crisis?

- (A)John F. Kennedy
- (B)Abraham Lincoln
- (C)The odors Roosevelt
- (D)Jimmy Carter

6. Which of the following animals does not lay eggs?

- (A) Pigeon
- (B) Ostrich
- (C) Penguin
- (D) Bat

7. Which actor portrayed the role of Indiana Jones in the Indiana Jones movie series?

- (A) Tom Hanks
- (B) Harrison Ford
- (C) Al Pacino
- (D) Robert De Niro

8. What is the national game of China?

- (A) Cricket
- (B) Table Tennis
- (C) Ball
- (D) Hockey

**APPTITUTE 25 x 2 = 50 marks.**

Q1. A 300 meter long train speeds pass a pole in 12 seconds. what is its speed in km/hour?  
(a) 40 Km/hrs (b) 90 Km/hrs (c) 60 Km/hrs Ans: b

Q2. If  $879=8$ ,  $625=3$  and  $589=9$ , what is 785 ?  
(a) 7 (b) 0 (c) 9 Ans: b

Q3. Identify the missing term?  
(a) PQT (b) PQR (c) STQ Ans:a

Q4. ABC : ZYX : CBA : ?  
(a) ZXY (b) BCA (c) XYZ

Ans:cs

Q5. The oldest news paper is  
(a) Times of India (b) Hindu (c) States man Ans:a

Q6. How many Tuesday are possible if the last day of the month is Wednesday?  
(a) 4 only (b) 5 and 4 both (c) 3 only Ans:b

Q7. India is a:  
(a) secular state (b) communist state (c) capitalist state Ans:a

Q8. Minister in the union cabinet are appointed by the  
(a) prime minister (b) president (c) president on advice of prime minister

Ans:c

Q9. How many types of emergency can be declared by the president of India?  
(a) 2 (b) 3(c) 5Ans:b

Q10. The retirement age of a supreme court judge is  
(a) 55 yrs (b) 62 yrs (c) 65 yrs Ans:c

Q11. The term least restrictive environment refers to the education of the:  
(a) Handicapped (b) retarded(c) gifted Ans:a

Q12. All India institute of medical sciences (AIIMS) is located in  
(a) lucknow (b) Delhi (c) Chennai Ans:b

- Q13. Which of the following is the biggest fresh water lake in India?  
 (a) dal lake (b) sukhna lake (c) none of these Ans:c
- Q14. Which is called the “Tiger State”?  
 (a) Rajasthan (b) Madhya Pradesh (c) uttar pradesh Ans:b
- Q15. Which of the following river is known as “sorrow of bihar”?  
 (a) damodar (b) gandak (c) kosi Ans:c
- Q16. Smallest addressable unit in computer  
 (a) byte (b) FM (c) TPM Ans:a
- Q17. The linking of a computers with a communication syatem is called  
 (a) networking (b) interfacing (c) assembling Ans:a
- Q18. Which of the following is only star?  
 (a) moon (b) sun (c) earth Ans:b
- Q19. Which country is known for the most frequent earthquakes?  
 (a) Italy (b) japan (c) china Ans:b
- Q20. In prakash’s family these are four Sisters. each sisters has a brother. how many male members are there in the family?  
 (a) 4 (b) 5 (c) 2 Ans:b
- Q21. 4,2,5,1,6,.....?  
 (a) 7 (b) 11 (c) 0 Ans:a
- Q22. If  $5*4=15$ ,  $7*8=49$  and  $6*5=24$  what will be  $8*4=?$   
 (a) 28 (b) 30 (c) 24 Ans:c
- Q23. If lack is coded as 396 what will be the code for back?  
 (a) 56 (b) 66 (c) 86 Ans:c
- Q24. Complete the following series DGLU.....?  
 (a) l (b) w (c) n Ans:a
- Q25. Five books are kept on each other. E is at A,C is bellow B. if A is above B and D is below  
 c, then which is at the top?  
 (a) E (b) B (c) A Ans:a