

**INSTRUCTIONS**

1. Read the instructions given at the beginning/end of each section or at the beginning of a group of questions very carefully.
2. This test has two sections with 60 questions – 30 questions in each section. The TOTAL TIME available for the paper is **140 minutes**. The time available for each section is 70 minutes and you cannot return to the first section once you have started the second section.
3. You are expected to show your competence in both the sections.
4. All questions carry three marks each. Each wrong answer will attract a penalty of one mark.

**SECTION – I****Number of Questions = 30**

**DIRECTIONS** for questions 1 to 5: Answer the questions independently of each other.

1. If  $f_1(x) = \frac{2}{2+x}$  and  $f_n(x) = \frac{1}{1+f_{n-1}(x)}$ , where  $n > 1$ ,

then find the approximate value of  $f_{50}(1)$ .

(A) 0.128 (B) 0.618 (C) 0.666 (D) 0.45

2. Each of A, B and C had some marbles with them. B distributed half the marbles with him among A and C in the ratio 1 : 3. Then C distributed half the marbles with him among A and B in the ratio 1 : 3. After that, A distributed half the marbles with him among B and C in the ratio 1 : 3. If each of them now has 64 marbles, find the difference between the number of marbles with A and C in the beginning.  
(A) 43 (B) 67 (C) 110 (D) 108

3. There are 24 Rosagollas and 36 Kulfis in a box, which is given to three friends – Anil, Anand and Abhilash. Anil eats only Rosagollas at a rate of  $x$  Rosagollas per minute, while Anand eats only Kulfis at a rate of  $y$  Kulfis per minute and Abhilash simultaneously eats  $2x$  Rosagollas and  $3y$  Kulfis per minute, where  $x$  and  $y$  are both positive integers. All

the three start eating the sweets at the same time and it is observed that after the first two minutes the number of Rosagollas and the number of Kulfis left is same. What is the ratio of the number of Kulfis that Abhilash eats per minute to the number of Rosagollas that Anil eats per minute?

(A)  $\frac{2}{9}$  (B)  $\frac{3}{2}$  (C)  $\frac{9}{4}$  (D)  $\frac{9}{2}$

4. The lengths of the sides of a right-angled triangle are in geometric progression. What is the ratio of the sines of its acute angles?

(A) 1 (B)  $\sqrt{3}$   
(C)  $\frac{\sqrt{5}+1}{2}$  (D)  $\sqrt{\frac{\sqrt{5}+1}{2}}$

5. Rohan and Sohan start simultaneously from a point A on a circular track and run in the same direction. The speed of Rohan is nine times the speed of Sohan. How many times are they diametrically opposite to each other by the time Sohan completes three complete rounds on the track?

(A) 27 (B) 23 (C) 48 (D) 24

**DIRECTIONS** for questions 6 to 8: Answer the questions on the basis of the information given below.

The following table gives the total weightage of the top 20% and the total weightage of the bottom 20% of the companies that constitute the index, for twelve of the major stock market indices of the world. In each index, the companies that comprise the index are first arranged in the descending order according to their respective weightages in the index. The top  $p\%$ , and the bottom  $p\%$  of the companies would then be the first  $p\%$  and the last  $p\%$  of the companies in the list.

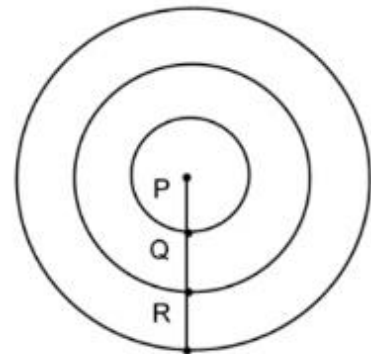
Sl. No.	Index	Weightage of bottom 20% of the companies	Weightage of top 20% of the companies
1	SENSEX	5.5%	43%
2	NIKKEI	7.2%	41.6%
3	KOPSI	3.8%	39.8%
4	DOW JONES	2.7%	44.1%
5	NIFTY	5.1%	46.4%
6	NASDAQ	3.5%	39.4%
7	FTSE 100	2.8%	43.4%
8	HANG SENG	3.1%	47.1%
9	DAX	5.9%	38.6%
10	STRAITS TIMES	6.3%	39.5%
11	KLSE	7.2%	37.6%
12	S & P 500	4.1%	42.6%

6. For at least how many of the given indices is the weightage of the bottom 50% of the companies that constitute the index, less than 30%?  
 (A) 2 (B) 4  
 (C) 6 (D) Cannot be determined
7. Given that a total of 30 companies constitute the SENSEX, the weightage in the SENSEX of a company that is among the top ten companies (by weightage) that constitute the SENSEX, would be at least  
 (A) 3.0% (B) 2.4%  
 (C) 2.0% (D) Cannot be determined
8. For how many of the given indices is the weightage of the top 40% of the companies that constitute the index, definitely more than 60%?  
 (A) 2 (B) 4 (C) 6 (D) 7
15. In a section of a timber mill, cylindrical logs of wood, all of uniform dimensions, arrive as the input and are cut into smaller cylindrical pieces of the same radius using manual and mechanical saws. To operate a manual saw four workers are needed and to operate a mechanized saw two workers are needed. The team of four workers takes two hours to cut a log into two cylindrical pieces using a manual saw, whereas just two workers are needed to do the same work in one hour using a mechanized saw. The time required to make a cut is proportional to the area across which the cut is made. How long will it take for 12 workers to cut 60 logs into four equal pieces each, if they have two mechanised saws and two manual saws?  
 (A) 40 hours (B) 80 hours  
 (C) 120 hours (D) 60 hours

**DIRECTIONS** for questions 9 to 18: Answer the questions independently of each other.

9. Harry Potter bought a triangular piece of land of area  $150 \text{ m}^2$ . Harry took a piece of rope and measured the two sides of the plot and found the largest side to be 50 m long and another side to be 10 m long. What is the exact length of the third side?  
 (A)  $40\sqrt{3}$  m (B)  $30\sqrt{2}$  m  
 (C)  $\sqrt{1560}$  m (D)  $24\sqrt{2}$  m
10. Find the total number of ways in which one can wear three distinct rings on the five fingers of one's right hand, given that one is allowed to wear more than one ring on a finger.  
 (A) 120 (B) 360 (C) 480 (D) 210
11. In a casino, there were three different coloured tokens – Red, Green and Blue – with face values of ₹20, ₹50 and ₹100 respectively. The total worth of all the tokens in the casino was ₹18,500. On a busy day, when the tokens were not sufficient, all the Red tokens were given a new face value of ₹200 (while there was no change in the value of the Green and Blue tokens). The net worth of all the tokens after the change was ₹27,500. If the average number of tokens per colour is equal to the number of Green tokens, then find the total number of tokens in the casino.  
 (A) 150 (B) 180 (C) 270 (D) 288
12. If  $a_1, a_2, \dots, a_n$  ( $n > 3$ ) are all unequal positive real numbers,  
 and 
$$E = \frac{(1+a_1+a_1^2)(1+a_2+a_2^2)\dots(1+a_n+a_n^2)}{a_1 a_2 \dots a_n}$$
,  
 then which of the following best describes E?  
 (A)  $E \leq 2^n$  (B)  $E \geq 3^n$  (C)  $E > 3^n$  (D)  $E > 2^n$
13. For an odd positive integer  $n$ , satisfying  $51 \leq n \leq 99$ , the quantity  $n^3 - n$  is always divisible by  
 (A) 48 (B) 24  
 (C) 18 (D) None of these
14. For a particular day of the year, it happens that the sum of the date and square root of the month gives the square of the month. What is the date?  
 (A) 14<sup>th</sup> February (B) 16<sup>th</sup> April  
 (C) 16<sup>th</sup> February (D) 14<sup>th</sup> April

16. Three persons A, B and C start running simultaneously on three concentric circular tracks from three collinear points P, Q and R respectively, which are collinear with the centre and are on the same side of the centre as shown. The speeds of A, B and C are 5 m/s, 9 m/s and 8 m/s respectively. The lengths of the tracks on which A, B and C are running are 400 m, 600 m and 800 m respectively.

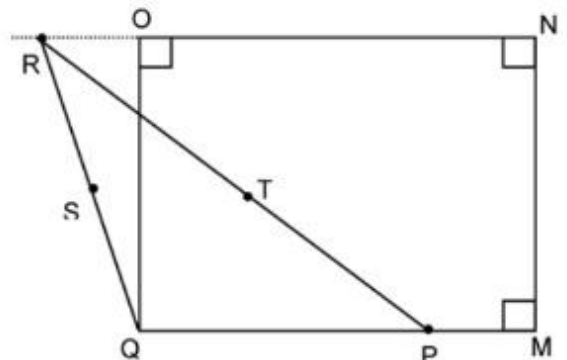


If A and B run in clockwise direction and C in anti-clockwise direction, after how much time will the positions of A, B and C be collinear with the centre and on the same side of the centre, for the first time after they start?

- (A) 200 seconds (B) 400 seconds  
 (C) 600 seconds (D) 800 seconds

17. A rectangle MNOQ is drawn and length 'NO' is extended to a point R and a triangle QPR is drawn, with  $QP = \frac{2}{3}QM$ . Angle  $ORP = 45^\circ$  and side

$QR = 4\sqrt{17}$  cm. S and T are the midpoints of sides QR and PR respectively. If  $ST = 6$  units, the area (in sq.cm) of the rectangle is



- (A) 112 (B) 144 (C) 288 (D) 256

18. A series in which any term is equal to the sum of the preceding two terms is called a Fibonacci series. Usually the first two terms are given initially and together they determine the entire series. Now, it is known that the difference of the squares of the ninth and the eighth terms of a Fibonacci series is 840. What is the 12<sup>th</sup> term of that series?  
 (A) 157 (B) 142  
 (C) 143 (D) Cannot be determined

**DIRECTIONS** for questions 19 to 21: Answer the questions on the basis of the information given below.

The following tables give some demographic details of eight states – A through H – in a particular year.

Name of the state	Total population (in million)	Majors	Minor males	Minor Females	Minors (in million)
		as a percentage of total population			
A	29.7	61.6	20.3	18.1	11.40
B	45.7	67.2	17.0	15.8	15
C	21.3	70.1	15.3	14.6	6.36
D	30.2	56.6	23.8	19.6	13.1
E	26.1	64.1	16.7	19.2	9.37
F	10.3	55.7	24.3	20	4.56
G	11.7	56.2	23.2	20.6	5.12
H	38.5	67.2	15.4	17.4	12.63

19. Minors form approximately what percentage of the population of all the eight states put together?  
 (A) 28% (B) 36% (C) 40% (D) 44%
20. Approximately what percentage of the total population of states A, D and H are majors?  
 (A) 57.2% (B) 59.1% (C) 62.3% (D) 66.2%
21. What is the approximate number (in million) of minor females in states A, B and C together?  
 (A) 16.3 (B) 14.2 (C) 20.1 (D) 18.4
- DIRECTIONS** for questions 22 to 24: Answer the questions independently of each other.
22. The numbers 1, 2,..... $n$  are written in the natural order. Numbers in odd places are struck off to form a new sequence. This process is continued till only one number is left. If  $n = 1997$ , the number left is  
 (A) 1996 (B) 1988 (C) 512 (D) 1024
23. A is a non-empty set having  $n$  elements. P and Q are two subsets of A, such that P is a subset of Q. Find the number of ways of choosing the subsets P and Q.  
 (A)  $4^n$  (B)  $3^n$  (C)  $2^n$  (D)  $n^2$
24. A can do a certain piece of work in 18 days more than the time taken by A and B together to do the same work. B can do the same work in 8 days more than the time taken by the two to complete the same work. They agree to do the work for a total compensation of ₹18000 and with the help of C complete it in 10 days. How much money will C get as his share?  
 (A) ₹500 (B) ₹2000 (C) ₹3000 (D) ₹4500

**DIRECTIONS** for questions 25 to 27: Answer the questions on the basis of the information given below.

The table below gives the distribution of marks obtained in five subjects – Mathematics, Physics, Chemistry, Botany and Zoology – by the students of class XII of a school, in their term exam. In the table, the details of the marks in any subject are given for only those students who appeared for the exam in that subject.

Any student who failed to appear for the exam in any subject was considered to have failed in that subject and was not allowed to write that exam again.

Subject ↓	Marks →		Less than 20 marks		20 marks and above but less than 40 marks		40 marks and above but less than 60 marks		60 marks and above but less than 80 marks		80 marks and above	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mathematics	5	6	12	13	28	17	30	15	36	36		
Physics	24	8	12	10	16	8	24	20	32	36		
Chemistry	26	14	16	18	30	15	18	15	20	24		
Botany	18	5	18	11	20	19	24	28	30	22		
Zoology	18	4	25	12	12	8	23	35	34	30		

- Note**
- Maximum marks in any subject are 100.
  - Not all students have appeared for all the subjects.
  - The number of students not appearing for an exam in any subject is at most 15.

25. What is the maximum number of students studying in class XII in the school?

- (A) 216 (B) 215  
(C) 210 (D) 205

26. If the minimum marks required to pass in any subject are 40, the number of students who did not pass in Chemistry is at most

- (A) 74 (B) 81 (C) 83 (D) 89

27. If the number of girls in class XII of the school is 90, then the number of subjects in which the number of boys who did not appear for the exam is more than the number of girls who did not appear for the same exam, is at most

- (A) 3 (B) 2 (C) 4 (D) 1

**DIRECTIONS** for questions 28 to 30: Answer the questions independently of each other.

28. Lal, a horticulturist always divides his gardens perfectly and completely into several identical squares and places posts at all the corners of all the squares. After this, he plants one tree per square. If Lal chose a rectangular garden and used 36 posts in all, find the maximum number of trees that he could have planted in the garden?

- (A) 25 (B) 36 (C) 16 (D) 49

29. The sum of the series  $1 + \frac{2}{11} + \frac{5}{11^2} + \frac{10}{11^3} + \frac{17}{11^4} + \dots$  is

- (A)  $\frac{154}{125}$  (B)  $\frac{32}{25}$  (C)  $\frac{363}{250}$  (D)  $\frac{215}{175}$

30. In how many ways can 40 sweets be given to A, B, C and D such that B gets at least three sweets and D gets at least five sweets, while A and C may or may not get any sweets?

- (A) 4960 (B) 6545 (C) 9139 (D) 15

## SECTION – II

Number of Questions = 30

**DIRECTIONS** for questions 1 to 3: Answer the questions independently of each other.

- Each one of Mr. Raj, his mother, his wife and his son is a different professional among lawyer, doctor, engineer and accountant. The accountant is not the son of the lawyer, who is a blood relative of the doctor. The engineer is the son of the accountant, who is not a blood relative of the doctor. Who can never be the doctor?  
(A) Mr. Raj (B) Mr. Raj's wife  
(C) Mr. Raj's son (D) Both A and C
- Five boys – Vivek, Abhishek, Roy, Das and Ranjan – were compared in terms of height and weight. Vivek is taller and lighter than Abhishek. Ranjan is shorter and heavier than Das. Both Abhishek and Roy are taller and heavier than Das. If Abhishek is taller than Roy, then Vivek is heavier than Ranjan. Roy is heavier than Abhishek. If Roy is heavier than Das, then Abhishek is taller than Roy. Who is the lightest?  
(A) Roy (B) Das  
(C) Ranjan (D) Abhishek
- Five men, A, B, C, D and E, sitting (in this order) at a round table had to decide as to who among them would be the Chairman. The best way, of course, was to decide by voting. None of the five members voted for himself or for either of his neighbours. The first ballot resulted in a tie. The second time, C voted for E while, the others stuck to their old choices, thereby resulting in E's victory. Then, the person who voted for B in the first ballot was  
(A) D (B) E  
(C) C (D) Cannot be determined

**DIRECTIONS** for questions 4 to 6: Answer the questions on the basis of the information given below.

Each of the five batsmen – A, B, C, D and E – belongs to exactly one team among Rajasthan, Bangalore, Mumbai,

Kolkata and Punjab, not necessarily in that order. No two of them belong to the same team. In a twenty-20 tournament, the total runs scored by each of them is unique and is among 96, 112, 64, 72 and 80, in no particular order. The number of balls faced by each of them is a multiple of 4. Each of them faced at least 16 and at most 36 balls. The runs scored per ball by each of them is an integer and is not more than 4.

Further the following information is known:

- The total runs scored by the batsman of team Mumbai is 24 more than that scored by C.
- The difference between the runs scored by the batsmen of teams Bangalore and Rajasthan is half the difference between the runs scored by batsmen D and E.
- No one scored less runs per ball than the batsman who scored 16 runs less than that scored by the batsman of team Kolkata. E does not belong to team Mumbai.
- B faced the least number of balls and scored 8 runs more than a batsman, who is not a player of team Bangalore.
- Who among the following belongs to team Punjab?  
(A) A (B) B (C) C (D) E
- What is the difference between the scores of the batsman of team Kolkata and that of team Rajasthan?  
(A) 16 (B) 8 (C) 40 (D) 32
- What is the number of balls faced by the batsman of team Rajasthan?  
(A) 20  
(B) 36  
(C) 24  
(D) Cannot be determined

**DIRECTIONS** for questions 7 to 9: Answer the questions on the basis of the information given below.

729 small pink cubelets are painted pink on each face and then arranged together so as to form 27 identical medium-sized cubes. Each of these 27 medium-sized cubes is painted black on all the outside faces. The 27 medium-sized cubes are now arranged to form one large cube and the faces of this large cube are painted pink again.

7. What is the number of small cubelets that have at least one face painted black?  
(A) 365 (B) 604 (C) 556 (D) 729
8. What is the number of small cubelets that have at least one face painted pink?  
(A) 125 (B) 567 (C) 365 (D) 729
9. What is the number of small cubelets which have an equal number of faces painted pink and black?  
(A) 0 (B) 42  
(C) 64 (D) None of these

**DIRECTIONS** for questions 10 and 11: In the following questions, the word in capitals is used in four different ways. Choose the option in which the usage of the word is INCORRECT or INAPPROPRIATE.

**10. APART**

- (A) As soon as Abhishek took the toy train in his hands, the whole thing came apart and he started bawling.
- (B) I mistake Latha for Sheela because I can't differentiate between them apart.
- (C) Jerry completed the paper, apart from the last question.
- (D) Thanks to technology, we don't feel that we live 3000 kms apart.

**11. GROUND**

- (A) Good workers are thin on ground these days.

- (B) The Kargil soldiers held their ground against the enemy.
- (C) The guest lecturer covered new ground in every session.
- (D) My grandfather designed the house from the ground up.

**DIRECTIONS** for questions 12 and 13: Each of the following questions presents four statements, of which three, when placed in appropriate order, would form a contextually complete paragraph. Pick the statement that is not part of that context.

12. (A) Many of the Impressionists eschewed black, for example, conscious that shadow was actually composed of other colours, mostly purples and blues.  
(B) In his delightfully readable book, Philip Hook, Sotheby's senior director of Impressionist and Modern Art, analyses how the movement took different forms in different countries.  
(C) Whether in their landscapes, figure paintings or still lifes, the Impressionists celebrated and transformed the commonplace, finding beauty in a misty harbour at sunrise and radiance in a bowl of fruit.  
(D) But what it had in common everywhere was the younger generation's desire to cleanse artistic vision by painting only what they saw about them, with broad brush strokes and brighter, simpler colours.
13. (A) A less barbaric fix is cloning patients' hair cells.  
(B) Surgical solutions for restoring lush locks have always involved a painful trade off - transplanting hair from the rear of your head to the top could leave you thin in the back.  
(C) The procedure is a matter of vanity, it could provide insight into how to clone other tissues for therapeutic uses.  
(D) Dr. Farjo makes use of this technique and injects the clones into sparse scalp regions, where each can sprout a fresh hair.

**DIRECTIONS** for questions 14 to 16: Read the following passage and answer the questions that follow it.

I reported on the Iraq invasion as a "unilateral" journalist, which meant I rented an SUV from Hertz in Kuwait and sneaked across the border with the first US tanks. I wound up in Baghdad on April 9, 2003, and watched the Marines tear down the iconic statue of Saddam Hussein at Firdos Square. I returned to Iraq on several occasions to work on lengthy stories about the dismal turn of events as the occupation turned into a war of Americans against Iraqis, and Iraqis against Iraqis. The carnage, though heartbreaking, was almost the least shocking experience of my journeys between war in the Mideast and my home in New York City.

While Americans killed and got killed in Iraq, Americans back home shopped at Walmart and watched reality television. I had covered a lot of wars and thought I had grown accustomed to peaceful countries being unconcerned by other people's quarrels. My unsentimental education had begun in the 1990s in Bosnia where I often had a Matrix-like experience. In the morning, I would wake up in Sarajevo or another cursed town that was blasted by bombs, frozen by winter and deprived of food. I would then begin my effort to get the hell out of hell. I would hope for a seat on what was known as Maybe Airlines. These were the UN relief flights that brought food into besieged Sarajevo. Maybe the shelling would be light enough for flights to land and take off, maybe not. If the flights were grounded, I could try to escape by driving along Sniper Alley and through a creepy no man's land that constituted the only border that mattered in a nation cut and quartered by war.

Distances are small in Europe. By the afternoon, I could be in Vienna or Budapest or London, enjoying the comfortable life that Europe offered many of its citizens: hot showers, good food, clean sheets, the certainty that I would not be killed by a mortar as I slept. I had a hard time believing these altered states existed in such close proximity. The contented Europeans eating apple strudel or shopping at Harrods on those 1990s afternoons - didn't they realize war was being



fought in their backyard? The answer was that they knew and didn't care. Proximity isn't destiny. Bosnia though close, wasn't their home. Other people were killing and dying, not their people.

I had understood only half of it and learned the other half a decade later, on my return to America after sojourns in Iraq. Outside the tight-knit community of military families who cared deeply about the wars, nearly everyone in America went about his or her life as though Iraq and Afghanistan didn't matter much. Nor had Americans been asked to change their way of life. It had become possible, I realized, for a nation to be at war without suffering the inconveniences associated with war - including the inconvenience of thinking about it.

World War II was a classic war in the sense of rationing, of drives for war bonds, of a draft the elite could not avoid with college deferments and of a ceaseless drumbeat in almost every sector of society that a great conflict was being fought that required great sacrifices of everyone. Even for families spared the loss of a loved one overseas, World War II was a visible - intentionally visible - aspect of life in the homeland; the nation's leaders made it so. Life as it was before the war had to be suspended.

14. Which of the following best states the author's main point?
- (A) War is an existential issue.
  - (B) War is not an exception to normal peacetime, but an enduring condition.
  - (C) Wars do not bother people any more, even when waged on their behalf.
  - (D) Wartime is the unpleasant and unwelcome partner of peacetime.
15. The phrase 'unsentimental education' is used to
- (A) imply that there is no escape from the clutches of war.
  - (B) disclose the shockingly indifferent attitude of people towards war.
  - (C) point out that wars are no longer situated in historical context.
  - (D) argue that the end of war is imminent.
16. The author states "Proximity isn't destiny" to suggest that
- (A) pushing the boundaries during military conflict is not a new experience for Europeans.
  - (B) political discourse can be more important to public opinion than war itself.
  - (C) Europeans would not give up their comforts because the neighbours are at war.
  - (D) geographical boundaries are not predestined but wars are.

**DIRECTIONS** for questions 19 and 20: The sentences given in each of the following questions, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. From among the four choices given below each question, choose the most logical order of sentences that constructs a coherent paragraph.

19. (a) In the New York City public schools, the overemphasis on standardized testing has led to test score inflation and numerous cheating scandals.
- (b) Campbell's Law predicts that any time huge stakes are attached to quantitative data, the data itself will become inherently unreliable and distorted through cheating and gaming the system.
- (c) Precious resources are diverted to "for-profit" testing companies, and learning time is lost as students spend weeks preparing for the tests, and teachers are pulled out of the classroom for days at a time to score them.
- (d) In New York City, class sizes in the early grades are the largest in 13 years.
- (e) Meanwhile school budgets are scraped to the bone and class sizes are rising.
- (A) badec                      (B) abdec  
(C) baced                      (D) cbade

**DIRECTIONS** for questions 17 and 18: There are two blanks in each of the following sentences. From the pairs of words given below them, choose the pair that fills the blanks most appropriately.

17. Our Constitution is so simple and \_\_\_\_\_ that it is always possible to meet extraordinary needs by changes in emphasis and arrangement without loss of essential \_\_\_\_\_.
- (A) rational . . . notion  
(B) comprehensible . . . norm  
(C) practical . . . form  
(D) realistic . . . ideology
18. In any society that values liberty and regards it as a right, punishment will be viewed very seriously, to be \_\_\_\_\_ only if a very good justification for it is \_\_\_\_\_.
- (A) awarded . . . based  
(B) imposed . . . posited  
(C) meted . . . tendered  
(D) provided . . . forwarded
20. (a) As the grammar of standard English extends to the grammar of code, our errors find themselves embedded in programmes and replicating further and more widely than previously imaginable.  
(b) Even a poorly constructed tweet reflects a poorly constructed thought, while grammatically lacking e-mail messages have become the hallmark of password phishing scams.  
(c) Language is no less exacting than mathematics.  
(d) As the title of a book "Eats, Shoots and Leaves" demonstrates, a single comma can change a sentence about the diet of a panda to one describing the behaviour of a dine-and-dash killer.  
(e) The emergence of digital technology makes precision in language even more important.
- (A) acdeb (B) cdeab  
(C) deabc (D) edabc

21. The passage mentions which of the following as a feature of the 1980s postmodernist wave?
- (A) It resisted Frye's fixing of meaning with the contention that the text is fluid.  
 (B) It led the deconstruction of *Anatomy of Deconstruction*.  
 (C) It condemned Frye's censure of the canonized literature of dead white males.  
 (D) All of the above.
22. According to the passage; romance, comedy, tragedy and irony are
- (A) common symbols that populate all of literature.  
 (B) the four essential moulds into which every story could be fit.  
 (C) Atwood's interpretation of ancient myths that abound in contemporary novels.  
 (D) Jungian archetypes that perpetuate themselves in canonical texts.
23. In the context of the passage, the word "soluble" means
- (A) decipherable                      (B) slippery  
 (C) polysemic                          (D) interpretable

**DIRECTIONS** for question 24: The following question has a paragraph from which the last sentence has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.

24. During the formative period, organised labour relied almost solely upon its economic strength, while today it places immeasurable value upon the

convincing power of logic, facts and the righteousness of its cause. More and more organised labour is coming to believe that its best interests are promoted through concord rather than by conflict.

- (A) It prefers the conference table to the strike field.  
 (B) So, trade unionism has kept pace with progress which has been made in industry.  
 (C) In doing so, organised labour is not committed to any dogma or to inflexible rules.  
 (D) It recognises and appreciates the value and importance of armistice.

**DIRECTIONS** for questions 25 and 26: In each question, there are five sentences or parts of sentences that form a paragraph. Identify the sentence(s) or part(s) of sentence(s) that is/are correct in terms of grammar, punctuation, spelling and usage. Then, choose the **most appropriate** option.

25. (a) Tucked in the lower ranges of the eastern Himalayas is a bowl-shaped Ziro valley, the home of  
 (b) the Apatanis, who practise a unique agriculture system for which no farm animals, machines and modern methods are used. Their staple  
 (c) food includes fish, rice and pork. One of their delicacy is cooked rice stuffed in a hollow bamboo stem,  
 (d) which is then baked on burning coal. At night, villagers sit  
 (e) together and enjoy home-brewd rice beer.  
 (A) a and d                              (B) a, b and e  
 (C) Only d                                (D) b and d

26. (a) The financial industry has done such a good job of bringing itself to its knees over the past  
(b) four years that it is easy to overlook the threats they face from outside.  
(c) High among them is electrical attack. In 2010, Symantec, a cyber-security firm, estimated that
- (d) three-quarter of all "phishing" attacks , in which people are deceived into surrendering private details such as account numbers, are aimed at the finance sector.  
(A) a and e  
(C) d and e
- (B) a, d and e  
(D) Only e

**DIRECTIONS** for questions 27 to 30: Read the following passage and answer the questions that follow it.

In the first scene of 'Hitchcock Loves Bikinis', a young mum is playing happily with her baby. Next comes a close-up shot of Alfred Hitchcock, the late movie director, smiling. Clearly, he is a man whose heart is warmed by this sweet glimpse of maternal love. In the next scene, we see a bikini-clad woman sunbathing followed by exactly the same shot of Hitchcock smiling. Instead of a benign grandfatherly figure, this time we see a lecherous old man. The moral of the story is simple: context is everything.

Mr. Kagan's effort, "Psychology's Ghosts," consists of his assessment of four problems in psychological theory and clinical practice. The first problem is laid out in the chapter "Missing Contexts": the fact that many researchers fail to consider that their measurements of brains, behaviour and self-reported experience are profoundly influenced by their subjects' culture, class and experience, as well as by the situation in which the research is conducted.

In his second essay, "Happiness Ascendant", Mr. Kagan virtually demolishes the popular academic effort to measure "subjective well-being", let alone to measure and compare the level of happiness of entire nations. No psychologist, he observes, would accept as reliable your own answer to the question: "How good is your memory?" Whether your answer is "great" or "terrible," you have no way of knowing whether your memory of your memories is accurate. But psychologists, Mr. Kagan argues, are willing to accept people's answers to how happy they are as if it "is an accurate measure of a psychological state whose definition remains fuzzy."

In the third and fourth essays, "Who Is Mentally Ill?" and "Helping the Mentally Ill", Mr. Kagan turns to the intransigent problems of psychiatric diagnosis and treatment. The Diagnostic and Statistical Manual of Mental Disorders (DSM) "regards every intense bout of sadness or worry, no matter what their origin, as a possible sign of mental disorder," Mr. Kagan laments. But "most of these illness categories are analogous to complaints of headaches or cramps. Physicians can decide on the best treatment for a headache only after they have determined its cause. The symptom alone is an insufficient guide."

Nonetheless, the DSM is primarily a collection of symptoms, overlooking the context in which a symptom such as anxiety or low sexual desire occurs and what it means to an individual. It might mean nothing at all. What it means to an American might mean nothing to a Japanese. The same one-size-fits-all approach plagues treatment: "Most drugs can be likened to a blow on the head," Mr. Kagan observes, they are blunt instruments, not precisely-tailored remedies. Psychotherapy depends largely on the clients' belief that it will be helpful, which is why all therapies help some people and some people are not helped by any. No experience affects everyone equally - including natural disasters, abuse, having a cruel parent, losing a job or having an illicit affair - though many therapists wish us to believe the opposite.

27. The passage is primarily concerned with
- (A) presenting a series of complaints from psychiatric establishments.
  - (B) highlighting the negative side of positive psychology.
  - (C) alerting modern psychologists to the importance of context.
  - (D) identifying problems in contemporary psychology.
28. The passage suggests which of the following as most likely to be true of the DSM?
- (A) It reduces mental disorders to standard symptoms.
  - (B) It assumes that each category of mental disorders is a completely discrete entity with well defined boundaries dividing it from other mental disorders.
  - (C) It considers all emotional disturbances as mental disorders.
  - (D) It ignores individual differences and thus restricts the validity of its research.
29. It can be inferred from the passage that the author believes which of the following about psychiatric treatment?
- (A) Clinicians have less confidence in the value of therapy.
  - (B) Patients are invariably treated with drugs.
  - (C) Drugs treat symptoms and they may or may not work.
  - (D) Psychotherapy takes an individual's life circumstances into account.
30. The first paragraph performs which of the following functions in the passage?
- (A) It advances an argument to be disputed.
  - (B) It presents situations that support a view discussed in the passage.
  - (C) It introduces conflicting views to be reconciled.
  - (D) It cites a case that illustrates a problem presented more generally in the passage.