

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER****English M.C.Q's**

No. of Questions: 40 (from 1 to 40)

Time allowed: 45 Minutes

Questions on Page Numbers: 1 To 5

Negative markings: **Yes****For questions 1-4, read the text, and then choose the best answer (A, B, C, or D) to the question.**

When I'm in New York, feeling lonely for Wyoming I look for the Western movie ads in the subway. But the men I see in those posters with their stern, humorless looks remind me of no one I know in the West. In our earnestness to romanticize the cowboy we've ironically disesteemed his true character. If he's "strong and silent" it's because there's probably no one to talk to. If he "rides away into the sunset" it's because he's been on horseback since four in the morning moving cattle and he's trying, fifteen hours later, to get home to his family. If he's "a rugged individualist" he's also part of a team: ranch work is teamwork and even the glorified open-range cowboys of the 1880s rode up and down the Chisholm Trail in the company of twenty or thirty other riders. It's not toughness but "toughing it out" that counts.

1. According to the passage, cow-boys are probably "strong and silent" because:
 - A. their work leaves them no time for conversation.
 - B. they have been cautioned not to complain
 - C. they are stern and humorless
 - D. there is no one nearby to listen to them.

2. For which of the following statements does the passage give apparently contradictory evidence?
 - A. The cowboy's work takes endurance.
 - B. Cowboys work alone.
 - C. Cowboys are adequately paid in American culture.
 - D. Cowboys think of themselves as humorless.

It is said that a smile is universally understood. And nothing triggers a smile more universally than a taste of sugar. Nearly everyone loves sugar. Infant studies indicate that humans are born with an innate love of sweets. Based on statistics, a lot of people in Great Britain must be smiling because on average, every man, woman, and child in that country consumes 95 pounds of sugar each year.

3. From this passage it seems safe to conclude that people in Great Britain
 - A. do not know that too much sugar is unhealthy.
 - B. eat desserts at every meal.
 - C. are fonder of sweets than most people.
 - D. have more cavities than any other people.

In the words of Thomas DeQuincey, "It is notorious that the memory strengthens as you lay burdens upon it." If, like most people, you have trouble recalling the names of those you have just met, try this: The next time you are introduced, plan to remember the names. Say to yourself, "I'll listen carefully; I'll repeat each person's name to be sure I've got it, and I will remember." You'll discover how effective this technique is and probably recall those names for the rest of your life.

4. The main idea of the paragraph maintains that the memory
 - A. always operates at peak efficiency.
 - B. breaks down under great strain.
 - C. improves if it is used often.
 - D. becomes unreliable if it tires.

(go on to the next page)

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For questions 5- 8 , select the best version (A, B, C or D) of the underlined part of the sentence.

5. If for example you're sick and you don't wash your hands frequently, the warm, moist creases in your palms become perfect havens for disease-causing germs, making it easy for you to spread them directly to others or onto surfaces that others may touch.
- A. If, for example you're sick and you don't wash your hands
 B. If for example you're sick and you don't wash your hands
 C. If, for example, you're sick and you don't wash your hands
 D. If for example, you're sick and you don't wash your hands
6. Soon you'll have lots of sniffing company.
- A. Soon, you'll have, lots of sniffing company.
 B. Soon, you'll have lots of sniffing company.
 C. Soon you'll have lots of sniffing company.
 D. Soon you'll have, lots of sniffing company.
7. Germs from other peoples hands can cling to bars of soap so it is better to use a squirt of liquid soap.
- A. other people's hands can cling to bars of soap so it is better
 B. other peoples' hands can cling to bars of soap, so it is
 C. other peoples' hands can cling to bars of soap so it is
 D. other people's hands can cling to bars of soap, so it is better
8. The important thing to remember is that some pretty serious diseases including hepatitis A meningitis and infectious diarrhea can easily be prevented if people make a habit of washing their hands.
- A. some pretty serious diseases, including hepatitis A, meningitis, and infectious diarrhea, can easily be prevented if people
 B. some pretty serious disease, including hepatitis A meningitis and infectious diarrhea can easily be prevented, if people
 C. some pretty serious diseases, including hepatitis A, meningitis and infectious diarrhea, can easily be prevented, if people
 D. some pretty serious diseases, including hepatitis A, meningitis, and infectious diarrhea, can easily be prevented, if people

For questions 9-13, the following paragraphs are composed of sentences which are in a jumbled order. Rearrange the sentences in the proper order by choosing the most appropriate sentence sequence from the answer choices.

9. a. But two decades later, his words haunted me as I lay paralysed on my bed and struggled to come to terms with my life.
 b. "Don't lose yourself," the old, bedridden man said.
 c. To be honest, I can't remember his name or how we knew him.
 d. I was four or five at the time, and my family was visiting him.
- A. a, b, d, c B. b, c, a, d C. c, b, d, a D. b, c, d, a
10. a. As I walked to my home in Singapore after school one day, I was overcome with the urge to sit in a corner and weep.
 b. These overwhelming, unexplained feelings frightened me.
 c. For years, I had suffered from depression.
 d. The first incident I can remember happened when I was 14.
- A. b, c, d, a B. a, b, c, d C. c, d, a, b D. d, c, a, b

(go on to the next page)

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11. a. I spent the next two days agonising over whether she had hung up because she hated me.
 b. After we chatted for a while, she said she had to go because her mum was calling her.
 c. One incident I recall vividly was a call from a friend.
 d. And all the while a little voice in my mind kept telling me how worthless, hopeless and stupid I was.
- A. c, b, d, a B. c, b, a, d C. c, a, b, d D. c, d, b, a
12. a. It is an illness with an underlying cause.
 b. Depression is neither a choice nor a bad mood you can snap out of.
 c. But no matter how much other people try to help, only the victims can help themselves get better.
 d. I am not saying that without help I would have been able to survive depression, but if I had chosen not to get out of it, I would not have.
- A. b, a, c, d B. d, c, b, a C. b, a, d, c D. d, a, b, c
13. a. I did lose myself, but I managed to find myself again.
 b. It has not been easy to open up or share my feelings, but it's getting easier all the time
 c. I am enjoying my life and my work as an English and Science teacher at a tuition centre.
 d. I have become more positive.
- A. a, b, c, d B. b, a, c, d C. d, c, b, a D. c, d, a, b

For questions 14 - 25 , decide which answer (A, B, C or D) best fits each blank.

I'm an 14. _____ recycler. I made the scarecrow from 30 milk cartons 15. _____ inside clothes so they won't 16. _____. It should have looked 17. _____, like Worzel Gummidge. Instead it looked 18. _____, as though there was someone 19. _____ over the garden. People were 20. _____ of it. I wrote on my advert that it was 21. _____ to frighten 22. _____ away from planted areas.

The head is a pinkish towel for some colour, and the clothes came from a council estate in Birmingham. They were 23. _____, really, so the charity shop didn't want them. I just hate waste so I 24. _____ I would make a scarecrow. I put a shirt on top and from far away it doesn't look too 25. _____.

14. A. super B. extreme C. severe D. intense
15. A. stuffed B. filled C. puffed D. fulled
16. A. decay B. perish C. decompose D. rot
17. A. frank B. frankly C. friend D. friendly
18. A. sinister B. threatening C. menacing D. ominous
19. A. staring B. peering C. gazing D. looking
20. A. disturbed B. petrified C. scared D. alarmed
21. A. surefire B. assured C. certain D. guaranteed
22. A. childrens B. childs C. children D. childs'
23. A. attire B. ragged C. rags D. apparel
24. A. think B. thought C. imagined D. anticipated
25. A. shabby B. dilapidated C. untidy D. unclean

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For questions 26 - 36, decide which answer (A, B, C or D) best fits each blank.

Most people think they know what they are good at. They are usually wrong. More often, people know what they are not good at—and even 26. _____ right. And 27. _____, a person can perform only 28. _____ strength. One 29. _____ build performance 30. _____, let alone on something one 31. _____ at all.

Throughout history, people 32. _____ their strengths. 33. _____ into a position and a line 34. _____ work: The 35. _____; and so on. But 36. _____. We need to know our strengths in order to know where we belong.

26. A. then more people are wrong than B. than more people are wrong then
 C. than more people are wrong than D. then more people are wrong then
27. A. after that B. then C. yet D. thus
28. A. through B. by C. from D. on
29. A. cannot B. would not C. must not D. do not
30. A. on weaknesses B. on weaknessess C. from weeknessess D. from weakneses
31. A. cannot does B. would not does
 C. can not do D. should not do
32. A. have little need to know B. have little need to knew
 C. had little need to know D. has little need to knew
33. A. A person was born B. The person was born
 C. A person born D. The person born
34. A. of B. on C. off D. from
35. A. peasant's son would also be a peasant B. peasants' son will also be a peasant
 C. peasant's son must also be a peasant D. peasants' son must also being a peasant
36. A. now people have choices B. choices are given to people
 C. people are free to choose D. now people are choosy

Questions 37- 40 comprise a set of two sentences each. Read the sentences, and then choose the best answer (A, B, C, or D) to the question.

37. Your diaphragm gets stretched, pulled, and pounded during a run, which can cause that sharp, stabbing pain at the lower edge of your rib cage, usually on the right side of your body. To help the pain pass, slow down and take more controlled, easy breaths.

What does the second sentence do?

- A. It gives an example.
 B. It reinforces the opinion.
 C. It proposes a solution.
 D. It states an effect.

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38. Traditionally, dromaeosaurids have been depicted as being fast runners and dangerous predators, as popularized in the film Jurassic Park. The evidence usually cited includes the long and stiffened tail and the strongly curved claws.

How are the two sentences related?

- A. The second reinforces what is stated in the first
- B. The second explains what is stated in the first.
- C. The second expands on the first.
- D. The second draws a conclusion about what is stated in the first.

39. Today, it is becoming increasingly clear that no country — whether rich or poor — can escape from the impacts of climate-related disasters. Hurricane Sandy, a late-season cyclone, swept through the Caribbean and up the East Coast of the United States in late October 2012, leaving dozens dead, thousands homeless and millions without power.

What does the second sentence do?

- A. It cancels the meaning of the first.
- B. It provides an example of the first sentence.
- C. It adds more detail to the first sentence.
- D. It offers an exception to the information given in the first sentence.

40. The price of doing nothing about climate change will mean a world dramatically different from the one that we live in today. A world where runaway climate change will have even more devastating impacts than we can possibly imagine.

What does the second sentence do?

- A. It states the cause of the first.
- B. It compares.
- C. It draws a conclusion.
- D. It emphasizes what is stated in the first.

(Stop. Do not turn over this page until you are told to do so.)

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER****Mathematics M.C.Q's**

No. of Questions: 50 (from 41 to 90)

Time allowed: 70 Minutes

Questions on Page Numbers: 6 To 12

Negative markings: **Yes**

Q41 The sum of 20 observations is 500, the mean is

- A) 75
- B) 50
- C) 25
- D) None of these

Q42 If the variance of 20 observations is 25, then its standard deviation is

- A) 625
- B) 125
- C) 25
- D) 5

Q43 Measures of the sides of four triangles are given. The triangle which is not a right angled triangle is

- A) 3cm, 4cm, 5cm
- B) 9cm, 12cm, 15cm
- C) 3cm, 5cm, 7cm
- D) 30cm, 40cm, 50cm

Q44 The value of $\sin 30^\circ$ is

- A) $\frac{1}{2}$
- B) $\frac{\sqrt{3}}{2}$
- C) $\sqrt{3}$
- D) $\frac{1}{\sqrt{3}}$

Q45 $2 \sin 30^\circ \cos 30^\circ =$

- A) $\cos 60^\circ$
- B) $\sin 60^\circ$
- C) $\cos 45^\circ$
- D) $\sin 45^\circ$

Q46 Which is an irrational number?

- A) $\sqrt{16}$
- B) $\sqrt{2}$
- C) 111
- D) 123

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- Q47 Which fraction is the same as 5.06?
- A) $\frac{17}{3}$
- B) $\frac{127}{25}$
- C) $\frac{253}{50}$
- D) None of these
- Q48 Which of the following is equivalent to $\frac{17}{4}$?
- A) 4.5
- B) 4.75
- C) 4.25
- D) None of these
- Q49 Which of the following has the same value as $9^{16} \times 9^{-8}$?
- A) 9^{-128}
- B) 9^{-2}
- C) 9^2
- D) 9^8
- Q50 If $x = 800$, what is the value of $5\sqrt{2x}$?
- A) 20
- B) 100
- C) 200
- D) None of these
- Q51 Which of the following is equivalent to 123.456×10^{-7} ?
- A) 0.00123456
- B) 0.000123456
- C) 0.0000123456
- D) 0.00000123456
- Q52 Which operation will change the value of any nonzero number?
- A) adding zero
- B) multiplying by zero
- C) multiplying by one
- D) dividing by one
- Q53 Find the value of x , if $\log_{10} x = -2$?
- A) 1.0
- B) 0.1
- C) 0.01
- D) 0.001
- Q54 $\frac{\log_7 100}{\log_7 10000} =$
- A) 1.0
- B) 0.5
- C) 0.25
- D) 0.125

(go on to the next page)

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Q55 If $x = 3 + \sqrt{5}$, then the value of $x - 1/x$ will be

- A) $3 - \sqrt{5}$
- B) $2.25 + 1.25\sqrt{2}$
- C) 6
- D) None of these

Q56 The value of $\log_{256} 16$ is

- A) 0.25
- B) 0.50
- C) 0.75
- D) None of these

Q57 If $x + \frac{1}{x} = 2$, then the value of $x^4 - \frac{1}{x^4}$

- A) 6
- B) 4
- C) 2
- D) zero

Q58 The cube of $x + 3y$ is equal to

- A) $x^3 + 2y^3 + 6x^2y + 12xy^2$
- B) $x^3 + 27y^3 + 9x^2y + 27xy^2$
- C) $x^3 + 27y^3 + 6x^2y + 9xy^2$
- D) $x^3 + 2y^3 + 12x^2y + 9xy^2$

Q59 If $u + v = 5$ and $uv = 2$ then $u^2 + v^2$ is equal to

- A) 25
- B) 23
- C) 21
- D) None of these

Q60 $6x^2 - 4x - 2$ is equal to

- A) $(3x + 1)(x - 1)$
- B) $2(3x + 1)(x - 1)$
- C) $2x(3x - 2)(x - 1)$
- D) None of these

Q61 $\frac{x^2}{9} + 1$ can be made perfect square by adding

- A) $9x^2$
- B) $\frac{x}{3}$
- C) $\frac{2x}{3}$
- D) $3x$

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Q62 Which one of the following is an example of a scalar matrix?

- A) $\begin{bmatrix} 0 & 2 \\ 2 & 1 \end{bmatrix}$
 B) $\begin{bmatrix} 3 & 1 \\ 1 & 3 \end{bmatrix}$
 C) $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$
 D) $\begin{bmatrix} 0 & 3 \\ 3 & 0 \end{bmatrix}$

Q63 Under what conditions the following matrices are equal

$$\begin{bmatrix} 1 & 2 \\ 3 & a \end{bmatrix}, \begin{bmatrix} 1 & b+3 \\ c & 3 \end{bmatrix}$$

- A) $a = c$ and $b = -1$
 B) $a = c = 2$ and $b = -1$
 C) $a = c = 3$ and $3b = -a$
 D) None of these

Q64 If $A = \begin{bmatrix} 1 & 2 \\ 3 & 7 \end{bmatrix}$, then $A^{-1} =$

- A) $\begin{bmatrix} 7 & -2 \\ -3 & 1 \end{bmatrix}$
 B) $\begin{bmatrix} 7 & 2 \\ -3 & -1 \end{bmatrix}$
 C) $\begin{bmatrix} -3 & 2 \\ 2 & -7 \end{bmatrix}$
 D) $\begin{bmatrix} -3 & -2 \\ 2 & 7 \end{bmatrix}$

Q65 Let A be as in Q64, then $|A^{-1}| =$

- A) 1
 B) -1
 C) zero
 D) None of these

Q66 Let us consider a matrix equation of the form $A\underline{x} = \underline{b}$, where A is given in Q64, and $\underline{b} = \begin{bmatrix} 5 \\ -2 \end{bmatrix}$ and $\underline{x} = \begin{bmatrix} x \\ y \end{bmatrix}$. Then the values of x and y are

- A) $x = y = 1$
 B) $x = 39, y = -17$
 C) $x = -39, y = 17$
 D) None of these

Q67 The sum of two numbers is 72. The second number is three times as large as the first number. The smaller number is

- A) 14
 B) 16
 C) 18
 D) 20

Q68 The product of three consecutive integers is 21 more than the cube of the smallest integer. The smallest integer is.

- A) -3
 B) -4
 C) -5
 D) -6

(go on to the next page)

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Q69 The length of a rectangle is 4cm greater than its width. The perimeter is 24 cm. Find the area of the rectangle.

- A) 16cm^2
- B) 32cm^2
- C) 64cm^2
- D) None of these

Q70 The solution set of the equation $|5x - 12| = x$ is

- A) $\{2\}$
- B) $\{3\}$
- C) $\{2, 3\}$
- D) None of these

Q71 Find the solution set of $-|2x - 3| < -1$

- A) $\{x \mid x < 1\} \cup \{x \mid x > 2\}$
- B) $\{x \mid 1 < x < 2\}$
- C) $\{x \mid x < -1\} \cup \{x \mid x > 1\}$
- D) None of these

Q72 If the roots of the equation $x^2 - 3x + c = 0$ are two consecutive integers, then c must be

- A) 2
- B) 1.5
- C) 1.75
- D) 2.25

Q73 If one root of the equation $x^2 - px + 20 = 0$ is four, while the equation $x^2 - qx + p = 0$ has equal roots, then a possible value of q is

- A) 3
- B) 4
- C) 5
- D) 6

Q74 The number of real roots of the equation $|x|^2 - 4|x| + 4 = 0$ is

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

Q75 The values of q for which the difference between the roots of the equation $x^2 - qx + 8 = 0$ is 2 are

- A) ± 2
- B) ± 4
- C) ± 6
- D) ± 8

ALL ANSWERS MUST BE GIVEN ON THE ANSWER SHEET**BY CROSSING THE CORRESPONDING LETTER**

- Q76 If $(x - 2)$ and $(x - 3)$ are factors of $2x^2 - mx + n$, then the values of m and n are
- A) 5, 6
 B) 5, -6
 C) 10, -12
 D) 10, 12
- Q77 The H.C.F. of $x^3 y^3$ and xy^3 is
- A) $x^3 y^3$
 B) xy^3
 C) $x^4 y^3$
 D) None of these
- Q78 The domain of the binary relation $R = \{(12, 22), (32, 41), (51, 65), (71, 81)\}$ is
- A) $\{22, 41, 65, 81\}$
 B) $\{12, 32, 51, 71\}$
 C) $\{22, 41, 65, 81, 12, 32, 51, 71\}$
 D) None of these
- Q79 The set $A = \{1, 2, 3, 4\}$ has the following relations in it:
 $R_1 = \{(1, 2), (2, 3), (3, 4), (4, 1)\}$, $R_2 = \{(1, 2), (2, 3), (3, 3), (4, 1)\}$
 $R_3 = \{(1, 1), (2, 2), (3, 3)\}$, $R_4 = \{(2, 1), (4, 4), (3, 1), (2, 3)\}$
- The only correct statement is
- A) R_1 is an onto function
 B) R_2 is an onto function
 C) R_3 is a one - one function
 D) R_4 is a one - one and onto function
- Q80 The value of $\sqrt[3]{512x^9y^{12}}$
- A) $512x^{27}y^{36}$
 B) $8x^3y^4$
 C) $216x^2y^3$
 D) None of these
- Q81 What percent represents a ratio of 16 to 25?
- A) 8%
 B) 16%
 C) 32%
 D) 64%
- Q82 Sarah bought bananas, apples and pears. The ratio of bananas to apples was 3 to 5 and the ratio of apples to pears was 2 to 1. She bought 10 apples. How many pears did she buy?
- A) 20
 B) 15
 C) 10
 D) 5

(go on to the next page)

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- Q83 In a class 54 students and the ratio of girls to boys is 4:5. The number of girls in the class is
- A) 24
B) 30
C) 36
D) 42
- Q84 A map is drawn to a scale of 1 : 40000. Two points on the map are 6.5 cm apart. What is the actual distance between the points?
- A) 26 Kilometres
B) 2600 cm
C) 26 Meters
D) 2.6 Kilometres
- Q85 What is the missing term in the following ratio $7 : 10 = 21 : ?$
- A) 20
B) 30
C) 40
D) 50
- Q86 The cube root of x varies inversely as the square of y . If $x = 512$ when $y = 1.5$, find x when $y = 3$.
- A) 8
B) 6
C) 4
D) 2
- Q87 Find the missing number if median is 5: 1, 3, 5, ..., 7
- A) 6
B) 4
C) 3
D) 2
- Q88 If $|A| = 0$, then matrix A is called
- A) Invertible
B) Non-singular
C) Singular
D) None of these
- Q89 If A is a matrix of order $n \times m$ and B is a matrix of order $p \times n$, then product BA
- A) is not defined
B) is of order $p \times n$
C) is of order $m \times p$
D) is of order $p \times m$
- Q90 If $L = \begin{bmatrix} 7 & -2 \\ -3 & 1 \end{bmatrix}$, $M = \begin{bmatrix} 7 & 2 \\ -3 & -1 \end{bmatrix}$, $N = \begin{bmatrix} -14 & 0 \\ 6 & -1 \end{bmatrix}$, then
- A) $L + M + N$ is a null matrix
B) $ML = LM$
C) $|L| = |M|$
D) $|N|$ is a positive integer

(END of the TEST)

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