

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

Applied Math M.C.Q's

No. of Questions: 20 (from 1 to 20)

Time allowed: 30 Minutes

Questions on Page Nos: 1 To 4

Negative markings: Yes

**Q1.** The average of 6 numbers is 19. When one of the numbers is removed, the average of the remaining 5 numbers is 21. What number was taken away?

- A) 2
- B) 8
- C) 9
- D) 11

**Q2.** If Sheheryar drinks 10% of the juice from a 16-ounce bottle immediately before lunch and 20% of the remaining amount with lunch, approximately how many ounces of juice are left to drink after lunch?

- A) 4.8
- B) 5.5
- C) 11.2
- D) 11.5

**Q3.** If P pencils cost 2q dollars, how many pencils can you buy for c cents? (Tip: 1 dollar = 100 cents)

- A)  $\frac{pc}{2q}$
- B)  $\frac{pc}{200q}$
- C)  $\frac{50pc}{q}$
- D)  $\frac{2pq}{c}$

**Q4.** What is the difference between the sum of all positive odd integers less than 102 and the sum of all even integers less than 102?

- A) 0
- B) 1
- C) 50
- D) 51

**Q5.**  $\frac{2}{a} * \frac{b}{4} * \frac{a}{5} * \frac{8}{c} = ?$

- A)  $\frac{ab}{4c}$
- B)  $\frac{10b}{9c}$
- C)  $\frac{8}{5}$
- D)  $\frac{4b}{5c}$

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

- Q6.** Which of the following is nearest in value to  $\frac{1}{3} * 0.3 * \frac{1}{30} * 0.03$ ?
- A)  $\frac{1}{10,000}$   
B)  $\frac{33}{100,000}$   
C)  $\frac{99}{100,000}$   
D)  $\frac{33}{10,000}$
- Q7.** A stereo system originally priced at \$500 is discounted by 10%, then by another 10%. If a 20% tax is added to the purchase price, how much would a customer buying the system at its lowest price pay for it, including tax, to the nearest dollar?
- A) \$413  
B) \$480  
C) \$486  
D) \$500
- Q8.** A class of 56 students contains only freshmen and sophomores. If 21 of the students are sophomores, what is the ratio of the number of freshmen to the number of sophomores in the class?
- A) 3:5  
B) 5:7  
C) 5:3  
D) 7:4
- Q9.** If 3 miles are equivalent to 4.83 kilometers, then 11.27 kilometers are equivalent to how many miles?
- A) 1.76  
B) 5.9  
C) 7.0  
D) 8.4
- Q10.** Three lottery winners X, Y & Z are sharing a lottery jackpot. X's share is  $\frac{1}{5}$  of Y's share and  $\frac{1}{7}$  of Z's share. If the total jackpot is \$195,000, what is the dollar amount of Z's share?
- A) \$15,000  
B) \$35,000  
C) \$75,000  
D) \$105,000
- Q11.** If P is an odd integer and if Q is an even integer, which of the following expression CANNOT represent an even integer?
- A)  $3P - Q$   
B)  $3P * Q$   
C)  $2Q * P$   
D)  $3Q - 2P$

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

**Q12.** If  $x = -2$ , then  $x^5 - x^2 - x = ?$

- A) -70
- B) -58
- C) -34
- D) 4

**Q13.** If  $3\sqrt{2x} = 2$ , then  $x = ?$

- A)  $\frac{1}{18}$
- B)  $\frac{2}{9}$
- C)  $\frac{1}{3}$
- D)  $\frac{5}{4}$

**Q14.** If  $x^2 - y^2 = 100$ , and if  $x + y = 2$ , then  $x - y = ?$

- A) -2
- B) 10
- C) 20
- D) 50

**Q15.** During an 8-hour trip, Shahid drove 3 hours at 55 miles per hour and 5 hours at 65 miles per hour. What was his average rate, in miles per hour, for the entire trip?

- A) 58.5
- B) 60
- C) 61.25
- D) 62.5

**Q16.** Junaid plans to invest \$20,000 in an account paying 6% interest annually. How much more must he invest at the same time at 3% so that his total annual income during the first year is 4% of his entire investment?

- A) \$32,000
- B) \$36,000
- C) \$40,000
- D) \$47,000

**Q17.** One printing press can print a daily newspaper in 12 hours, while another printing press can print it in 18 hours. How long will the job take if both presses work simultaneously?

- A) 7 hours, 12 minutes
- B) 9 hours, 30 minutes
- C) 10 hours, 45 minutes
- D) 15 hours

**Q18.** Amir and Wajeeha together have \$20; Wajeeha and Hisham together have \$16. Amir and Hisham together have \$24. What is the smallest number of dollars that any person has alone?

- A) 4
- B) 6
- C) 10
- D) 24

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

- Q19.** How many miles are there between two cities if the distance is represented by a 2.4 inch line on a map having a scale of 1 inch to 8 miles?
- A) 19.2
  - B) 12.8
  - C) 8.5
  - D) 38
- Q20.** Twice the age of son is 4 year more than the age of his father. What is the age of the son if father is of 40?
- A) 16
  - B) 18
  - C) 20
  - D) 22

---

If you finish before time is called, you may check your work on this section only.  
**(Stop. Do not turn over the next page until you are told to do so.)**

---



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

English M.C.Q's

No. of Questions: 30 (from 21 to 50)

Time allowed: 30 Minutes

Questions on Page Nos: 5 To 9

Negative markings: Yes

Questions 21-28: Please read the selection below, then answer each question by choosing the best answer.

Over the past few years I've had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn't going—so far as I can tell—but it's changing. I'm not thinking the way I used to think. I can feel it most strongly when I'm reading. Immersing myself in a book or a lengthy article used to be easy. My mind would get caught up in the narrative or the turns of the argument, and I'd spend hours strolling through long stretches of prose. That's rarely the case anymore. Now my concentration often starts to drift after two or three pages. I get fidgety, lose the thread, begin looking for something else to do. I feel as if I'm always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle.

I think I know what's going on. For more than a decade now, I've been spending a lot of time online, searching and surfing and sometimes adding to the great databases of the Internet. The Web has been a godsend to me as a writer. Research that once required days in the stacks or periodical rooms of libraries can now be done in minutes. A few Google searches, some quick clicks on hyperlinks, and I've got the telltale fact or pithy quote I was after. Even when I'm not working, I'm as likely as not to be foraging in the Web's info-thickets' reading and writing e-mails, scanning headlines and blog posts, watching videos and listening to podcasts, or just tripping from link to link to link. (Unlike footnotes, to which they're sometimes likened, hyperlinks don't merely point to related works; they propel you toward them.)

For me, as for others, the Net is becoming a universal medium, the conduit for most of the information that flows through my eyes and ears and into my mind. The advantages of having immediate access to such an incredibly rich store of information are many, and they've been widely described and duly applauded. "The perfect recall of silicon memory," *Wired's* Clive Thompson has written, "can be an enormous boon to thinking." But that boon comes at a price. As the media theorist Marshall McLuhan pointed out in the 1960s, media are not just passive channels of information. They supply the stuff of thought, but they also shape the process of thought. And what the Net seems to be doing is chipping away my capacity for concentration and contemplation. My mind now expects to take in information the way the Net distributes it: in a swiftly moving stream of particles. Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.

--Nicholas Carr, "Is Google Making Us Stupid?"

21. In the last paragraph, Carr asserts that the convenience of the internet comes with a price. By this he means:
- A) Accessing the world wide web is expensive.
  - B) There is too much information available, and not enough time to absorb it all.
  - C) Deliberate, extended reading has become difficult.
  - D) People no longer visit libraries.
22. According to Marshall McLuhan, which of the following is NOT true:
- A) The media are channels through which information is disseminated.
  - B) The media tell us what to think.
  - C) The media delimit how we think.
  - D) The media are both process and product.
23. Which of the following activities does Carr NOT perform online:
- A) Research.
  - B) Reading emails.
  - C) Watching streaming videos.
  - D) Writing blogs.

(go on to the next page)

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

24. "Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski." This is an example of:
- A) Simile.
  - B) Analogy.
  - C) Synecdoche.
  - D) Personification.
25. By "foraging in the Web's info-thickets," Carr means
- A) Moving quickly from link to link.
  - B) Absorbing intellectual nourishment.
  - C) Looking for specific information.
  - D) Procrastinating.
26. Carr believes he isn't thinking in the same ways that he did in the past because
- A) He is suffering from a neurological condition.
  - B) He has lost his ability to concentrate for extended periods of time.
  - C) He is now more interested in water sports like scuba diving.
  - D) He has become addicted to the Google.
27. Which of the following is NOT true. According to Clive Thompson, information on the internet
- A) Is never wrong.
  - B) Aides our ability to think.
  - C) Can be recalled exactly.
  - D) Is stored on silicon chips.
28. The selected passages are an example of which of following rhetorical modes:
- A) Comparison and contrast.
  - B) Classification and division.
  - C) Narrative.
  - D) Cause and effect.

## Questions 29-34

For each of the following questions, please select the word that is closest in meaning to the word given.

29. Belligerent
- A) Angry.
  - B) Aggressive.
  - C) Fanciful.
  - D) Warlike.
30. Staccato
- A) Leisurely.
  - B) Disjointed.
  - C) Wavering.
  - D) Unhappy.
31. Simper
- A) Whimper
  - B) Smirk.
  - C) Pout.
  - D) Whine.

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

32. Calibrate  
 A) Think.  
 B) Discuss.  
 C) Agree.  
 D) Readjust.
33. Derelict  
 A) Ramshackle.  
 B) Old.  
 C) Unyielding.  
 D) Destructive.
34. Restitution  
 A) Atonement.  
 B) Relaxation.  
 C) Restatement.  
 D) Dissatisfaction.

## Questions 35-39

For each of the following question, please choose the best substitution for the underlined section of the sentence.

35. When we go to the beach, we are always taking a picnic lunch.  
 A) We always take  
 B) We are always taking  
 C) I am taking  
 D) I always take
36. According to the World Bank, by 2050 approximately 66% of the world's population will live in cities.  
 A) In 2050 approximately 66% of the world's population will live in cities.  
 B) Before 2050 approximately 66% of the world's population will live in cities.  
 C) By 2050 approximately 66% of the world's population will live in cities.  
 D) On 2050 approximately 66% of the world's population will live in cities.
37. Nations are defined as geopolitical entities bounded by stable borders and governed by the common set of laws.  
 A) And governed by one common set of laws.  
 B) And governed by a common set of laws.  
 C) And governed by the common set of laws.  
 D) And governed in the common set of laws.
38. After braiding Ayesha's hair, Salima decorated them with ribbons.  
 A) Salima decorated it with ribbons.  
 B) Salima decorated the hair with ribbons.  
 C) Salima decorated them with ribbons.  
 D) Salima decorated the braids with ribbons.
39. Ahmed and Nadya said they are planning to buy the movie tickets.  
 A) Ahmed and Nadya said they are planning to buy the movie tickets.  
 B) Ahmed and Nadya say they were planning to buy the movie tickets.  
 C) Ahmed and Nadya said they were planning to buy the movie tickets.  
 D) Ahmed and Nadya said they had plan to buy the movie tickets.

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

Questions 40-45

Please read the passage below, and then answer the questions that follow.

Uncountable are the editorials in every American and European newspaper and magazine of note adding to this vocabulary of gigantism and apocalypse, each use of which is plainly designed to inflame the reader's indignant passion as a member of the "west", and what we need to do. Churchillian rhetoric is used inappropriately by self-appointed combatants in the west's, and especially America's, war against its haters, despoilers, destroyers, with scant attention to complex histories that defy such reductiveness and have seeped from one territory into another, overriding the boundaries that are supposed to separate us all into divided armed camps.

This is the problem with unedifying labels such as Islam and the west: they mislead and confuse the mind, which is trying to make sense of a disorderly reality that won't be pigeon-holed. I remember interrupting a man who, after a lecture I had given at a West Bank university in 1994, rose from the audience and started to attack my ideas as "western", as opposed to the strict Islamic ones he espoused. "Why are you wearing a suit and tie?" was the first retort that came to mind. "They're western, too." He sat down with an embarrassed smile on his face, but I recalled the incident when information on the 11 September terrorists started to come in: how they had mastered all the technical details required to inflict their homicidal evil on the World Trade Center, the Pentagon and the aircraft they had commandeered. Where does one draw the line between "western" technology and, as Berloscuni declared, "Islam's" inability to be a part of "modernity"?

**--Edward Said, "We All Swim Together"**

40. The main purpose of this selection is
  - A) To make fun of the west.
  - B) To praise the technical skill of the terrorists.
  - C) To question conventional labels and identity categories.
  - D) To criticize the media.
41. Which of the following claims is NOT part of Said's argument:
  - A) Labels are not useful.
  - B) The claim that Islam cannot be part of modernity is false.
  - C) The histories of the 'west' and Islam are complexly intertwined.
  - D) Israel's occupation of the West Bank is a bad thing.
42. By "pigeon-holed" in the second paragraph, Said means
  - A) Literally stuffed into a small space.
  - B) Thinking like a pigeon.
  - C) An inability to see beyond one's own prejudices.
  - D) Narrowly categorized so as to be unhelpful.
43. According to Said, editorials in European and American magazine written about September 11<sup>th</sup>, 2001
  - A) Used language specifically designed to enrage western readers.
  - B) Argued for a measured approach to the terrorist attack.
  - C) Urged the west to set fire to the east.
  - D) Assessed complexly the relationships between Islam and western countries.
44. "Churchillian rhetoric" refers to
  - A) Bombastic pronouncements.
  - B) Inspirational public speaking.
  - C) Rhetoric full of abstract, archaic language.
  - D) Speaking with a stutter.
45. Said uses the example of the incident of the man at his lecture at a West Bank university to illustrate
  - A) His support for Palestinian rights.
  - B) How even Muslims wear western clothing.
  - C) How 'east' and 'west' are reductive categories.
  - D) How people from the east try to imitate those who live in the west.

(go on to the next page)

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

Questions 46-50

For each of the following questions, please select the most appropriate option to complete each sentence.

46. In his final semester, Nadeem tried to pay more \_\_\_\_\_ to his studies, because he knew he would need to improve his GPA in order to \_\_\_\_\_ admission at a good graduate school.
- A) Attention, secure.
  - B) Heed, seek.
  - C) Thought, find.
  - D) Mind, receive.
47. Mahatma Gandhi \_\_\_\_\_ many modern leaders, including Martin Luther King Jr. and Nelson Mandela.
- A) Have inspired.
  - B) Has inspired
  - C) Inspires.
  - D) Is inspiring.
48. Clinical trials are useful because \_\_\_\_\_ pharmaceutical companies pinpoint safety issues before medications are made available to the general public.
- A) It helps.
  - B) They help
  - C) Of helping.
  - D) It is helping.
49. And \_\_\_\_\_ the waters are part of the ocean of history, trying to plough or divide them with barriers is futile.
- A) Because
  - B) Although
  - C) That.
  - D) Since.
50. We were thrilled that the arrangements had worked out \_\_\_\_\_ for everyone.
- A) Perfectly.
  - B) Perfect.
  - C) To perfection.
  - D) With perfection.

(This is the END of the MCQs part of the Test.)

Please wait for the third part of the test, which is about a CASE STUDY.