# 5-YEAR INTEGRATED M.A. PROGRAMME IN SOCIAL SCIENCES <br> (Leading to Masters Degree in Anthropology, Economics, History, Political Science and Sociology) 

## Entrance Examination - June 2010

## Maximum Marks : 75

Time : 2 Hours

Hall Ticket No.


## INSTRUCTIONS :

1. Read these instructions carefully before answering.
2. Write the Hall Ticket Number in the OMR Answer Sheet given to you. Also write the Hall Ticket Number in the space provided above.
3. Answers are to be marked on the OMR Answer Sheet following the instructions provided there upon.
4. Hand over both the question paper booklet and OMR Answer Sheet at the end of the examination to the Invigilator.
5. No additional sheets will be provided. Rough work can be done in the question paper itself / on the space provided for it at the end of the booklet.
6. The question paper has three sections as explained below:

| Section | Question <br> Nos. | Title | Marks |
| :---: | :---: | :---: | :---: |
| $\mathbf{A}$ | Q1-Q25 | Language \& Comprehension | 25 |
| B | Q26 - Q50 | Reasoning Ability | 25 |
| C | Q51-Q75 | Quantitative Aptitude | 25 |

7. Answer all the questions.
8. Each correct answer carries one mark. There is NO negative marking.
9. Use of calculators is NOT permitted.
10. This question paper contains 16 pages excluding the OMR sheet.

## Section $A$ LANGUAGE AND COMPREHENSION

Questions in this section (1 to 25) are based on the following passage to test your understanding of the passage. Read the passage carefully and answer the questions.

## THE PASSAGE

After the conquest of second battle of Tarain in 1192 A.D. Ghori left behind an empire to be ruled by his generals. Qutb ud din Aibak is known to be the first sultan in the line of Mamluk Sultans. In Arabic Mamluk means 'owned'. The term Mamluk is used for bond slaves. It was also used for the military band of slaves who ruled Egypt for a long period of time. Till the coming of the Khiljis, the sultanate was ruled by Mamluk Sultans and the period is named so. Qutb-ud-din was a Turk of the Aibak tribe, and was born in Central Asia. As a child he was captured and sold as a slave (mamluk). He was purchased by the chief Qazi of Nishapur, who treated him like one of his own sons. Aibak received good education and was trained in archery and horsemanship. When his master died, his master's sons, who were jealous of Aibak, sold him to a slave merchant. Qutb-ud-din was bought by Sultan Muhammad Ghori, who, from the Ghor region of Central Afghanistan, had conquered present-day Afghanistan, Pakistan, Turkistan and northern India before his death in 1206 A.D.

Qutb-ud-din rose through the ranks to become Muhammad's most trusted general, and was increasingly left in charge of Muhammad's Indian campaigns and the administration of his Indian possessions after the second battle of Tarain in 1192 when Muhammad turned his attention towards affairs in Central Asia. Muhammad had no male heirs, and upon his death in 1206, Qutb-ud-din, after a brief power struggle, succeeded in establishing himself as Sultan of Muhammad's empire in Afghanistan, Pakistan and northern India. He conquered Delhi and defeated Raja Jaichand of Kannauj in a battle near Etawah. Then Banaras and Kalanjar were captured. The conquest of Bihar and Bengal was accomplished by his lieutenant, Muhammad bin Bakhtyar Khilji. Thus, almost all his great exploits were achieved during his viceroyalty. After Ghori's death he virtually became the master of the conquered dominion and established a new empire which is known in history as Delhi Sultanate. In 1206 A.D. he received the title of Sultan from Ghiyas ud din Mahmud, the nephew and successor of Muhammad Ghori on the throne of Ghor. He strengthened his position by politic matrimonial alliances with the influential rival chiefs. He married the daughter of Taj ud din Yaldoz and gave his sister to Nasiruddin Kubacha and daughter to Iltutmish, governor of Bihar.

On the death of Qutb ud din some of the Amirs set up his son Aram Baksh on the throne of Delhi. Aram proved himself quite incompetent to rule and was set aside in favour of Iltutmish. Eight months after Aram Shah took the reins of Delhi, his unhappy nobles requested Malik Shams-ud-din Iltutmish, Aibak's son-in-law, to takeover. Iltutmish was a shrewd and intelligent man. First, he made his position secure in Delhi by suppressing a rebellion of the Amirs and bringing the neighbouring provinces under control. He then defeated Taj ud din who had invaded Punjab and took him prisoner. Nasir ud din too was repulsed before Lahore and Khilji Maliks of Bengal were reduced to submission. He also sent an envoy with gifts to the caliph's court. The patent of investiture not only gave him authority to rule, it also freed him from the bondage of slavery. Thus,
his authority was enforced over Hindustan and was successful in saving the infant empire from decimation, thus truly laying the foundation of the Delhi sultanate.

The most terrible threat facing India came in the form of Chingiz Khan. He advanced as far as the Indus in pursuit of Jalal ud din, the fugitive prince of Khwarizm, who sought refuge at the court of Delhi. Iltutmish refused to comply with the request of the unwelcome guest. So, Jalal ud din after plundering Sind and Gujarat fled to Persia. Chingiz Khan too retired and India was spared the horrors of a Mongol invasion in 1221 A.D. Iltutmish died in 1236 A.D. He inherited an empire threatened with disintegration. He consolidated it and made it a strong empire. The Sultan struck coins, silver Tanka, on which he described himself as the lieutenant of the Caliph. He formed a group of trusted forty Turkish nobles known as Chaliha or Turqani-i- Chahalgani. They were to help him in running the affairs of the state. However, these nobles' loyalty was not for the throne but for the person, Iltutmish. He was the first ruler of medieval India to adopt as his monetary standard the silver 'Tanka'. The contemporary historian Minhaj us Siraj in his Tabaqat-iNasiri described him as a noble and benevolent king who had risen by his own efforts to the cradle of the empire.

Iltutmish had nominated his daughter Raziya, as his successor. However, after his death the nobles disregarding his wishes placed his son, Ruknuddin on the throne. The new ruler proved to be a worthless person and was soon set aside in favour of his sister. Raziya is credited with having revised the laws and reformed the system. But her sex and capability to rule went against her. The Chaliha could not reconcile to the rule of an able person as they wanted to play the role of a kingmaker and control the system through a weak king. Raziya's preference for an Abyssinian slave too offended the nobles. Revolts broke out and she was taken prisoner by Altunia, the rebel governor of Sirhind. In her place, her brother Baharam was made the ruler of the sultanate. Raziya gained confidence of her captor, married him and set forth with her husband to regain her lost throne. She fought two bloody battles with her brother but was captured along with her husband and both of them were put to death in 1240 A.D. The fact that her father, Iltutmish, had trusted her with power in his lifetime and had nominated her as his successor, also testifies to her ability and qualities to rule the empire.

By all accounts and assessments Iltutmish's reign was a remarkable success. It was under him that Lahore finally sank out of the political scene and Delhi became the unquestioned capital and not only politically - it was also becoming a great centre for culture and learning with many great scholars like Minhaj-us-Siraj, Hasan Nizami and Muhammad Aufi based here. Iltutmish was also the first medieval ruler to lay down a basic administrative system to rule his scattered territories, complete with proper revenue and finance departments, district (Iqta) divisions, local police systems and the works. It was not an ideal system but it worked, and quite well too.

## QUESTIONS

1. Qutbuddin was a Turk of
(A) Chaghtai Tribe
(B) Aibak Tribe
(C) Quraysh Tribe
(D) Uzbek Tribe
2. Aram Shah was set on the throne of Delhi after the death of
(A) Iltutmish
(B) Muhammad Ghori
(C) Mahmud Ghazni
(D) Qutbuddin Aibak
3. Chingiz Khan advanced as far as Indus in pursuit of which ruler?
(A) Iltutmish
(B) Muhammad Ghori
(C) Ghiyasuddin
(D) Jalaluddin
4. Who sent an envoy with gifts to Caliph's court?
(A) Qutbuddin Aibak
(B) Muhammad Ghori
(C) Iltutmish
(D) Ghiyasuddin Mahmud
5. After Raziya, who was made the ruler of the sultanate?
(A) Baharam
(B) Altunia
(C) Nasiruddin
(D) Yakut
6. In which year was Iltutmish's empire threatened by Mongol invasion?
(A) 1236 A.D.
(B) 1221 A.D.
(C) 2110 A.D.
(D) 2140 A.D.
7. Qutbuddin Aibak's wife was daughter of
(A) Tajuddin Yaldoz
(B) Muhammad Ghori
(C) Iltutmish
(D) Nasiruddin Kubacha
8. The silver coin of Iltutmish was known as
(A) Tanka
(B) Rupaiya
(C) Jeetal
(D) Dam
9. Ghori was victorious in the second battle of Tarain in
(A) 1191 A.D.
(B) 1195 A.D.
(C) 1192 A.D.
(D) 1190 A.D.
10. Nasiruddin Kubacha married sister of
(A) Muhammad Ghori
(B) Iltutmish
(C) Qutbuddin Aibak
(D) Ghiyasuddin Mahmud
11. Who was nominated by Iltutmish as his successor?
(A) Raziya
(B) Aram Shah
(C) Nasiruddin Mahmud
(D) Balban
12. Altunia was the governor of
(A) Dipalpur
(B) Lahore
(C) Sirhind
(D) Delhi
13. The term Mamluk is used for
(A) masters
(B) generals
(C) courtesans
(D) bond slaves
14. Minhaj us Siraj is the author of
(A) Tarikh I Firoz shahi
(B) Tabaqat I Nasiri
(C) Tabaqat I Akbari
(D) Fatwa I Jahandari
15. Which fugitive prince of Khwarizm sought refuge at the court of Delhi?
(A) Nasiruddin
(B) Jalaluddin
(C) Chingiz Khan
(D) Tajuddin
16. Qutbuddin was first purchased by the chief Qazi of
(A) Lahore
(B) Samarkand
(C) Nishapur
(D) Farghana
17. In which year did Iltutmish die?
(A) 1210 A.D.
(B) 1236 A.D.
(C) 1240 A.D.
(D) 1221 A.D.
18. Qutbuddin defeated Jaichand in a battle near
(A) Delhi
(B) Etawah
(C) Varanasi
(D) Patna
19. Who took Raziya as prisoner?
(A) Altunia
(B) Nasiruddin Mahmud
(C) Baharam Shah
(D) Yakut
20. The group of Forty Turkish nobles was known as
(A) Chaliha
(B) Pachisi
(C) Hafta
(D) Dehsala
21. Who succeeded Muhammad Ghori on the throne of Ghor?
(A) Qutbuddin Aibak
(B) Tajuddin Yaldoz
(C) Ghiyasuddin Mahmud
(D) Nasiruddin Kubacha
22. Qutbuddin's daughter was married to
(A) Tajuddin Yaldoz
(B) Iltutmish
(C) Bakhtiyar Khilji
(D) Nasiruddin Kubacha
23. In Arabic Mamluk means
(A) owned
(B) bought
(C) sold
(D) mortgaged
24. After how many months of Aram Shah's reign did the nobles invite Iltutmish to take over?
(A) eight
(B) six
(C) seven
(D) four
25. On the silver coin struck by Iltutmish, he described himself as
(A) commander of all believers
(B) commander of sea
(C) lieutenant of the caliph
(D) lieutenant of the Prophet

## Section B REASONING ABILITY

26. What is the next in the sequence of numbers: $0,3,8,15,24,35,48$, ?
(A) 61
(B) 63
(C) 65
(D) 57
27. If BHOPAL is YSLKZO, then PURI is ?
(A) KIFT
(B) JEHQ
(C) LGJS
(D) KFIR
28. Rakshith was not at school on Saturday last. He was also absent for 4 consecutive days immediately preceding that. Rakshith has not missed school ever before. Today is Monday, the $31^{\text {st }}$ of July. When was Rakshith first absent? Give the day and date.
(A) Monday, July $24^{\text {th }}$
(B) Tuesday, July $25^{\text {th }}$
(C) Wednesday, July $26^{\text {th }}$
(D) Thursday, July $27^{\text {th }}$
29. Given the following premises-
i. All animals are quadrupeds.
ii. Chairs are Quadrapedal objects
which of the following is the most appropriate inference?
(A) All quadrupedal objects need not be animals
(B) All objects are quadrupedal
(C) All animals are like chairs
(D) All animals are also objects.
30. If Vishnu is faster than Varun and Teja, Varun is faster than Chaitu, but slower than Teja, then who is the slowest?
(A) Vishnu
(B) Teja
(C) Chaitu
(D) Varun
31. "Psychology is the science of behaviour. All living organisms behave differently. Science is the logical and controlled way of studying various phenomena." What follows from these statements?
(A) Psychology is behaviour
(B) Psychology is living organism.
(C) Psychology is the science of behaviour of all organisms
(D) Psychology is not a science.
32. If Community : Norms then Government : ?
(A) Ordinances
(B) Rules
(C) Resolutions
(D) Taxes
33. Spot the odd one out.
(A) 7
(B) 35
(C) 27
(D) 49

## Answer questions 9-12 based on the following information.

There is a group of five persons $A, B, C, D$ and $E$ preparing for tests in five subjects, namely: English, general studies, arithmetic, reasoning and interview. The following provides information on their proficiency in different subjects:
a. A and $\overline{\mathrm{C}}$ are profficient in English and reasoning
b. B and C are profficient in English and general studies
c. E and D are proficient in arithmetic and interview
d. $E$ is proficient in interview, reasoning and arithmetic
e. B and D are proficient in arithmetic and general studies

The students lack proficiency in the subjects not specifically mentioned here.
34. Who is proficient in English, arithmetic and general studies?
(A) A
(B) B
(C) C
(D) D
35. Who is proficient in English and reasoning but not in general studies?
(A) A
(B) B
(C) C
(D) E
36. Who is proficient in arithmetic, general studies and interview?
(A) B
(B) C
(C) D
(D) E
37. Who is proficient in arithmetic, reasoning and interview?
(A) A
(B) C
(C) D
(D) E

## Answer questions 13-14 based on the following information.

A is the widow of B. B and C are the only children of E. C is unmarried and is a doctor. D is the grand daughter of E and studies science.
38. How is A related to the doctor?
(A) aunt
(B) daughter
(C) sister
(D) sister-in- law
39. How is D related to the doctor?
(A) nephew
(B) niece
(C) daughter-in-law
(D) daughter

## Answer questions 15-18 based on the following information.

In a tribal society, an unmarried woman, by custom, marries her elder sister's husband in the event of her sister's death (it is called a sororate marriage). A woman is not permitted to marry second time in the event of her husband's death, though she can marry second time in case of divorce by her husband. The children born to an unmarried woman are 'illegitimate' and do not inherit the property of his/her father. The children born to a man through a second marriage are however 'legitimate' children and inherit the property.

Persons A, B C, D, E and F belong to such a tribal society where the above norms are followed. ' $A$ ' married his mother's brother's daughter, ' $B$ '. ' $E$ ' is unmarried, is the younger sister of ' $B$ ' and has a child, namely, ' $C$ '. ' $F$ ' is the former wife of ' $A$ ' and ' $D$ ' is the child born to her from ' $A$ '.
40. Who among the following cannot inherit the property?
(A) B
(B) C
(C) D
(D) F
41. Which of the following could possibly result in a sororate marriage?
(A) Marriage of $A$ with $B$
(B) Marriage of F with C
(C) Marriage of $A$ with $E$
(D) Marriage of $B$ with $D$
42. Who among the following can remarry?
(A) A
(B) B
(C) E
(D) F
43. Whose children of the following can inherit the property of father?

1) Children born to $A$ and $B$
2) Children born to $A$ and $F$
3) Children born to $A$ and $E$ in case of A marrying $E$ after her sister' death
(A) Only 1
(B) Only 2
(C) only 1 and 3
(D) All 1, 2 and 3
44. A certain survey revealed that in a town, $40 \%$ of the people read English newspapers, while $75 \%$ of the people read vernacular newspapers. If $30 \%$ of the people read both English and vernacular newspapers, what is the percentage of people who do not read any newspapers?
(A) $10 \%$
(B) $15 \%$
(C) $20 \%$
(D) $5 \%$
45. Look at the statements given below and determine which of the listed inferences can be logically drawn from them?

Statements:
i. $X$ is husband of $Y$
ii. Y is the sister of S

## Inferences:

(a) S is the sister of Y
(b) S is a brother-in-law of X
(A) Only (a)
(B) Only (b)
(C) Both (a) and (b)
(D) Neither (a) nor (b)
46. There is a society wherein a monkey is called fish, a fish is called water, water is called tree and tree is called sky. Where, in the language of this society, do the fish live?
(A) Pond
(B) Water
(C) Tree
(D) Sky
47. If today is Wednesday, what will be the day on the $25^{\text {th }}$ day after the coming Sunday?
(A) Sunday
(B) Saturday
(C) Thursday
(D) Tuesday
48. "Many people are murdered by killers whose homicidal tendencies are triggered by an official execution. Since 1977, for each execution there were about four homicides. If each of the 1,788 death row prisoners were to be executed, up to 7,152 additional murders would be one of the results"

Which inference among the following can plausibly be drawn from the above?
(A) Homicides are caused by executions
(B) There is no relation between executions and homicides
(C) Executions follow from homicides
(D) Abolition of death penalty can save many homicides.
49. Identify the next member in the sequence: $2 / 3,4 / 7,7 / 13,11 / 21$,?
(A) $16 / 33$
(B) $15 / 29$
(C) $17 / 31$
(D) $16 / 31$
50. When Herodotus wrote his history of the ancient world, he mixed the lives of the famous with those of the everyday. He wanted not only to record the events that shaped his world but also to give his readers a taste of life in past times and far away places.

Which of the following best summarizes the above?
(A) Herodotus performed the tasks of both historian and journalist.
(B) Historians alone cannot reconstruct times and social circles.
(C) Herodotus relied on gossip and hearsay to compile his essays.
(D) Herodotus's history was based on scanty evidence.

## Section C QUANTITATIVE APTITUDE

51. If $x$ and $y$ are two real numbers such that $x>y$, then
(A) $x+a=y$ implies $a>0$
(B) $\mathrm{bx}<$ by implies $\mathrm{b}<0$
(C) $\mathrm{cx} \leq \mathrm{cy}$ implies $\mathrm{c}=0$
(D) $\mathrm{y} / \mathrm{x}=\mathrm{d}$ implies $\mathrm{d} \neq 0$
52. $\triangle A B C$ and $\triangle D E F$ are two triangles such that $A B=D E ; A C=D F$; and angle $B A C=$ angle DEF. Then,
(A) Triangles ABC and DEF can be congruent triangles
(B) Triangles ABC and DEF must be congruent triangles
(C) Triangles ABC and DEF can not be congruent triangles
(D) Triangles ABC and DEF must be similar triangles
53. Look at the figure given below. The radius of the circle $\mathrm{OA}=10 \mathrm{cms}$; and $\theta$ (angle $\mathrm{AOC})=60^{\circ}$.


Then the length of BC in cms is:
(A) $5(\sqrt{2}-1)$
(B) $5(2-\sqrt{3})$
(C) $5((2-\sqrt{2})$
(D) 5
54. Let $\tan \theta=0.75$, where $\theta \leq 90^{\circ}$. Then $\sec \theta-\cos \theta=$ ?
(A) 0.25
(B) 0.35
(C) 0.45
(D) 0.6
55. Find $x$ in $4: 9:: x: 81$
(A) 16
(B) 28
(C) 45
(D) 36
56. Factorize $\left(\mathrm{x}^{4}-16\right)$ :
(A) $(x-2)(x+2)\left(x^{2}+4\right)$
(B) $(x-2)(x+2)\left(x^{2}-4\right)$
(C) $(x+1)(x-4)\left(x^{2}+4\right)$
(D) $(x-1)(x+4)\left(x^{2}+4\right)$
57. Equation of a line is given as : $3 \mathrm{x}+2 \mathrm{y}=30$.
(A) It is parallel to x -axis and y intercept $=15$
(B) It is parallel to $y$-axis and $x$ intercept $=10$
(C) It intersects both $x$-axis and $y$-axis respectively at 15 and 10
(D) $(4,9)$ is a point on the graph of this line.

## Consider the following data for answering questions 58 and 59.

Mohan has 11 coins in his pocket. Weights of these coins in grams are as follows: $10,11,4,12,5,10,7,6,8,9,6$.
58. What is the median weight?
(A) 10
(B) 8
(C) 7
(D) 9
59. The above data is to be arranged in to a frequency table with some suitably defined class intervals. What is the frequency for the class interval " $9.5-11.5$ "?
(A) 1
(B) 2
(C) 3
(D) 4
60. Base for logarithm is 10 for this question. $\log 200$ is equal to -
(A) $2 \log 100$
(B) $3 \log 2+2 \log 5$
(C) $2+\log 2$
(D) both (B) and (C)
61. Half the balls in bag 1 are red. Bag 2 contains twice as many balls as are in bag 1 and one fourth of all balls in bag 2 are red, $\rightarrow$ The proportion of red balls in both the bag together is -
(A) $3 / 4$
(B) $2 / 3$
(C) $1 / 2$
(D) $1 / 3$
62. Which of the following are two rational numbers between 0.4 and 0.62 ?
(A) $52 / 200$ and $61 / 200$
(B) $159 / 300$ and $3 / 5$
(C) $18 / 39$ and $37 / 40$
(D) $1 / 2$ and $3 / 4$
63. Given $A=\{2,3,4\}$ and $B=\{1,0,3,7,2\}$, the number of elements in $A \cup B$ is -
(A) 5
(B) 6
(C) 7
(D) 8
64. Choose the correct answer from below for sets $A$ and $B$ given in Q. 63 -
(A) $A$ is a subset of $B$
(B) A and $B$ are disjoint
(C) $\mathrm{A} \backslash \mathrm{B}$ is a null set
(D) None of the above
65. In a class of 40 students everybody must take either a course in history or a course in sociology (or both). 22 students have taken sociology and 26 students have taken history. What is the percentage of students who have taken both history and sociology?
(A) $10 \%$
(B) $15 \%$
(C) $20 \%$
(D) $25 \%$
66. A seller sells boxes of assorted dry fruits at a discount of $20 \%$ on the list price of Rs 180 per box. If the cost price is Rs 150 per box, then the seller makes :
(A) a profit of $10 \%$
(B) neither profit nor loss
(C) a loss of $6 \%$
(D) a loss of $4 \%$.
67. Sheela purchased 10 -rupee (face value) shares from the ABC company at a market price of Rs 75 per share. The company declares a dividend of $90 \%$. What is the rate of return that Sheela earns on her investment?
(A) $90 \%$
(B) $9 \%$
(C) $12 \%$
(D) below $6 \%$
68. Equation $\mathrm{x}^{2}-\mathrm{x}-2=0$ has
(A) one - ve and one + ve root
(B) both - ve roots
(C) both + ve roots
(D) identical roots
69. 5 persons take 6 days to complete $1 / 5$ of their task of digging a water channel. How many more days will 12 persons take to finish the remaining task?
(A) 5 days
(B) 6 days
(C) 18 days
(D) 10 days
70. Kuldeep covers half the distance to his destination at 60 kmph . Then his motorbike develops a snag and he is able to finish the remaining half of his journey only at 30 kmph. What is his average speed?
(A) 36 kmph
(B) 40 kmph
(C) 45 kmph
(D) none of the above
71. A money-lender has been lending routinely at a compound rate of interest of $20 \%$ per annum and he lends for a fixed period of two years. The government bans charging of compound rate of interest. What annual simple rate of interest he must charge so that total interest earning on a loan to be given by him remains unchanged?
(A) $21 \%$
(B) $22 \%$
(C) $23 \%$
(D) $24 \%$
72. What is the solution to the system of equations given below:
(i) $5 x+3 y=7$
and
(ii) $x+2 y=0$
(A) $x=1 ; y=2$
(B) $x=-1 ; y=2$
(C) $x=2 ; y=1$
(D) $x=2 ; y=-1$
73. A series of rectangles is drawn such that sum of the two sides ( $a+b$ ) adds up to 2 cms . A circle is drawn with a diameter of 1 cms (mean of the two sides of the rectangle). If area of such a rectangle is denoted by $A_{1}$ and area of the circle is denoted by $A_{2}$, then,
(A) $A_{1}>A_{2}$, when $a=b=1$ but $A_{1}<A_{2}$ as " $a$ " becomes close to zero and " $b$ " close to 2 .
(B) $A_{1}>A_{2}$, for all such rectangles
(C) $A_{1}<A_{2}$, for all such rectangles
(D) perimeter of any such rectangle is fixed and is smaller than the circumference of the circle.
74. A boat with surface speed of 15 kmph takes 1 hour to reach its destination downstream but it takes 2 hours to cover the return journey upstream. What is the distance between the destination and the origin?
(A) 15 kms
(B) 20 kms
(C) 24 kms
(D) 30 kms
75. A water weed that grows fast enough to double itself in a week, is accidentally dropped in a large lake with a surface area of 100 square kms. After 20 weeks it is found that a quarter of the lake's surface area is under this water weed. How many more weeks will pass before the lake surface is fully covered by the water weed?
(A) 160 weeks
(B) 80 weeks
(C) 20 weeks
(D) 2 weeks.

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