



# MBA ENT 19-20

## Multiple choice questions

Read the passage and answer the following question 1 to 5.

After being the leading economy in the world for over two decades With its exports led economic growth model, China has finally been admitted into the global currency elite Of the International Monetary Fund's (IMF) reserve currency' list. From October next year, the Yuan or Renminbi (RMB), will form part of the "basket" of currencies from which the IMF derives the value of its own reserve asset, the Special Drawing Rights or SDRs. The basket of currencies includes the US Dollar, British Pound, Euro and the Japanese Yen.

But Yuan's entry into the IMF's elite basket is fraught with fears — not completely Unfounded through. First, China's model of success from 1979 has been based on trade surpluses and domestic investment. Now, the leadership would lothe changing that even though domestic growth has slowed down and there is a glut in much of the infrastructure sector. The Chinese leadership is also known for its propensity to devalue the Yuan often to make the country's export cheaper, which in turn led to its huge trade surplus. The other elite countries are all market democracies, with well - established rule of law'. These institutional advances preceded their becoming issuers of currencies dependable and liquid

Q1. Which economic growth model has been followed by China over the last two decades?

- (a) Imports-led economic growth model
- (b) Exports-led economic growth model
- (c) Export and Import led economic
- (d) Business growth mode; growth model

Q2.According to the passage. What does global currency elite group constitute

- (a) Basket of Investment Portfolio from which the IMF derives the value of special Drawing rights
- (b) Basket of Investment portfolio from which the World Bank derives the value of the special Drawing Rights.
- (c) Basket of currencies from which the World Bank of derives the value of Special Drawing Rights.

(d) Basket of currencies from which the IMF of derives the value of Special Drawing Rights.

Q3.According to the passage, why does the Chinese leadership used to devalue its currency 'Yuan'

- (a) To achieve trade deficit.
- (b) To make imports cheaper.
- (b) To make export cheaper.
- (d) To hinder economic growth.

Q4.What does author mean by the term 'currencies dependable and liquid in the passage?

- (a) Currency which can be used to develop infrastructure in the country
- (b) Currency which can be used to provide loans
- (c) Currency kept in reserve which cannot be easily converted into cash
- (d) Currency kept in reserve which can be easily converted into cash

Q5.Which of the following is not a synonym of 'PROPENSITY'?

- (a) Proclivity
- (b) Inclination
- (c) Tendency
- (d) Decency

Q6. Spot the error:

The only good thing (A) / about these (B) / pens arc (C) / their and size. (D)

- (a) A
- (b) B
- (c) C
- (d) D

Q7.Spot the error.

When we think of Gandhi, (A) / we feel (B) / that he was the most unique (C) / man of the world.(D)

- (a) A
- (b) B
- (c) C
- (d) D

Q8.Spot the error:

I forbade my son (A) / not to go through (B) / the contents (C) / of my letter. (D)

- (a) A
- (b) B
- (c) C
- (d) D

Q9. Spot the error:  
Unless the Indian Cricket team (A) / does not make extra efforts, (B) / will not be able (C) / to defeat the Sri Lankan team. (D)  
(a) A (b) B  
(c) C (d) D

Q10. Spot the error:  
I object to (A) / war not because it drains (B) / economy but that (C) it seems inhuman. (D)  
(a) A (b) B  
(c) C (d) D

Q11. Te antonym of the word 'baroque' is:  
(a) ornate (b) over decorated  
(c) decorated (d) plain

Q12. The synonym for the word 'aboriginal' is  
(a) modern (b) primeval  
(c) new (d) recent

Q13. The 'idiom' to make a heavy weather of means  
(a) to make things difficult (b) to make things easy  
(c) to face rain and storm (d) to face dense fog

Q14. I generally have to bread and butter for my breakfast,  
(a) do I (b) don't I  
(c) have I (d) haven't

Q15. Cat is to feline in the same way as.....is to.....  
(a) tiger, carnivorous (b) bird; vulpine  
(c) sit; recline (d) horse; equine

Q16. Projectile is to trajectory in the same way as.....is to.....  
(a) bullet; target (b) Satellite; orbit  
(c) movie; tragedy (d) dejection; renunciation

Q17. The rich and the poor alike, nobly responded..... the call..... further funds.  
(a) about; with (b) for; to  
(c) on; about (d) to; for

Q18. Let us vie..... one another..... doing good deeds.  
(a) for ; of (b) between ; while  
(c) with ; in (d) for ; on

Q19. They were statesmen accustomed..... the management..... great affairs.  
(a) with; about (b) in ; for  
(c) on; with (d) to ; of

Q20. ....money that had, I gave it to the poor urchin.  
(a) A little (b) The little  
(c) A few (d) The few

Q21. In an archery match. Peters team got more scores than David's team but not as many as Smith's team. Smith's team got more scores than Taiwa's team. Taiwa's team got fewer score than David's team. Which team is in second place in the descending order of scores?  
(a) Smith's team (b) Taiwa's team  
(c) Peter's team (d) David's team

Q22. A shepherd had 27 sheep. All but 10, died. How many he is left with?  
(a) 10 (b) 15  
(c) 17 (d) 21

Q23. Crop condition continues to be critical before rains. Assumption I: It is expected to improve after rain. Assumption II: Unless it rains no change in crop condition is likely to be.  
(a) Assumption I is implicit.  
(b) Assumption II is implicit.  
(c) Both I and II are implicit.  
(d) Neither of them is implicit.

Q24. Direction: In the following a matrix is given. The characters in the mat-ix follow a certain trend. Find out this trend and choose the missing character from the given alternatives.

26	18	10
11	9	7
5	4	1
10	5	?

(a) 2 (b) 4  
(c) 5 (d) 6

Q25. If L is the husband of M and N is the mother of O and M, what is N to L?  
(a) Mother (b) Sister  
(c) Aunt (d) Mother in Law

Q26. Brain is related to cranium in the same way as Pearl is related to.....  
(a) Box (b) Oyster  
(c) Sand (d) Shore

Q27. Which month begins and ends on the same day of the week?  
(a) February (b) April  
(c) December (d) February of leap year

Q28. Replace the question mark with the correct alternative

17, 36, 74, 150, ?, 606

- (a) 298 (b) 304  
(c) 302 (d) 300

Q29. Pointing to a man in a photograph, a woman said. "His brother's father is the only son of my grandfather." How is the woman related to the man in the photograph?

- (a) Sister (b) Aunt  
(c) Grandmother (d) Daughter

Q30. If A + B means A is the sister of B; A — B means A is the brother of B; A x B means A is the daughter of B; then Which of the following shows the relation that E is the maternal uncle of D?

- (a) D+F x E (b) D-F x E  
(c) D x F+E (d) D x F-E

Q31. In a chess tournament each of six players will play every other player exactly once. How many matches will be played during the tournament?

- (a) 12 (b) 15  
(c) 30 (d) 36

Q32. Pointing out to a lady, Rajan said, 'She is the daughter of the woman who is the mother of the husband of my mother'. Who is "she lady to Rajan?

- (a) Aunt (b) Grand Daughter  
(c) Daughter (d) Sister

Q33. A frog fell into 30 meters deep well and tries to get out. If it goes 3 m up every day and fails 2 m every night, then the number of days it takes the frog to get out of the well is:

- (a) 30 (b) 27  
(c) 15 (d) 24

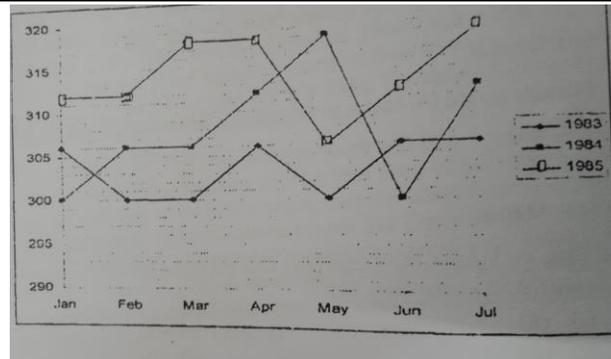
Q34. A, B, C, D, E and F are sitting in a row. If 'E' and 'F' are in the centre; 'A' and 'B' are at the ends; and 'C' is sitting on the left of 'A'; Then, who is sitting on the right of 'B'?

- (a) A (b) D  
(c) E (d) F

Q35. Arrange the following words according to dictionary.

1. Fenestration 2. Feather 3. Feed 4. Feature 5. Feminine  
(a) 4, 2,3,5,1 (b) 2, 4,1,5,3  
(c) 2, 4,3,5,1 (d) 4, 2,3,1,5

Instruction for Q.36 to 43. Interpret the answer of the questions from the data presented in the Graph showing monthly expenditure of a firm from January to July during the year 1983, 1985



	Jan	Feb	Mar	Apr	May	Jun	Jul
1983	306	300	300	306	300	306	306
1984	300	306	306	312	318	300	312
1985	312	312	318	318	306	312	318

Q36. What is the total expenditure during the period 1983 under review?

- (a) Rs.21, 07,000 (b) Rs.21,96,000  
(c) Rs.21,54,000 (d) Rs.21,24,000

Q37. What total expenditure has been made during the years 1983 and 1984 in the period covered in the graph?

- (a) Rs.42,87,000 (b) Rs.2,70,000  
(c) Rs.48,27,000 (d) Rs.4,278,000

Q38. What is average expenditure during the year 1985 covering the period shown in the graph?

- (a) Rs.2,75,000 (b) Rs.2,70,000  
(c) Rs.3,14,000 (d) Rs. 2,47,000

Q39. Which month has been least expensive during 1985?

- (a) June (b) April  
(c) May (d) July .

Q40. The expenditure in April 198\$ was.....% higher than that of corresponding period in 1984.

- (a) 1.5% (b) 2%  
(c) 2.5% (d) 0.94%

Q41. The expenditure in May 1983 was..... % less than that of corresponding period in 198\$.

- (a) 3% (b) 2.5%  
(c) 1.5% (b) 2%

Q42. The expenditure in May / June 1984 was.....% higher than that of corresponding period in 1985

- (a) 3% (b) 3.5%  
(c) 2% (d) 0%

Q43. Which month has been most expensive during 1984?

- (a) June (b) April  
(c) May (d) July

Instruction for Q. 44 to 50: The problems contain a question and two statements giving certain data. Decide whether the data given in the statements are sufficient for answering the questions.

Q44. What is the total cost of tiles needed for a room 9 feet by 12 feet?

1. Tiles are 6-inch square each.
  2. Tiles cost Rs. 10 per square feet.
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q45. If  $x$  is a positive number?

1.  $ax^2 = 16a$
  2.  $x - a > 0$
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q46. Pumps A and B can remove all the water from a tank in 30 minutes. How long will it take pump A to remove the water from the tank?

- Pump B alone can remove the water in 75 minutes.  
Pump A's pipe is smaller than Pump B's pipe.
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q47. The aggregate score of 3 cricketers A, B, C was 149. What was the score of each cricketer

1. B and C together made 76 runs,
  2. A and C together made 103 runs.
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q48. A tank holds 10,000 gallons, what is its height?

1. A gallon of liquid equals 13 cubic feet.

2. The diameter of the tank is 13 feet.

- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
- (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
- (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
- (d) If statement 1 and 2 together are not sufficient

Q49. The area of a circle A is 36 percent less than the area of circle B. What is

1. The perimeter of circle B = 20 ft.
  2. The diameter of circle B - diameter of circle A.
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q50. Is  $y$  greater than  $x$ ?

1.  $5x = 3k$
  2.  $k = y^2$
- (a) If statement 1 alone is sufficient but statement 2 alone is not sufficient
  - (b) If statement 2 alone is sufficient but statement 1 alone is not sufficient
  - (c) If both statements 1 and 2 together are sufficient but neither of statements alone is sufficient
  - (d) If statement 1 and 2 together are not sufficient

Q51. The steam locomotive "Rocket" which became prototype for steam rail engines was developed

- (a) Robert Stephenson
- (b) James Watt
- (c) Ellerman
- (d) Mallard

Q52. Who supported party-less Democracy in India?

- (a) Jayaprakash Narayan
- (b) Jawahar lal Nehru
- (c) Gopal Krishna Gokhale
- (d) B.R. Ambedkar

Q53. Brundtland Commission is released to:

- (a) Terrorism
- (b) Migration
- (c) Proliferation of Nuclear Weapons
- (d) Sustainable Development

Q54. Who among the following has power to proclaim "State Emergency"?

- (a) President of India
- (b) Prime Minister of India
- (c) Governor of the State
- (d) Chief Minister of the State

Q55. How many Writs can be issued by the Supreme Court for enforcement of the fundamental rights?

- (a) Three
- (b) Two
- (c) Six
- (d) Five

Q56. Which one of the following treats democracy as a mechanism to bring about equilibrium in society

- (a) J.S. Mill (b) Robert Dahl  
(c) T.H. Green (d) Mepherston

Q57. Under Article 304, whose previous sanction is required for introducing bills in the State Legislature on certain matters enumerated in the State List?

- (a) Governor of the State (b) Speaker or Lok Sabha  
(c) Chief Minister of State (d) President of India

Q58. Slogan of French Revolution, 'Liberty, Equality and Fraternity' is derived from the philosophy of which political philosopher?

- (a) Hobbes (b) Rousseau  
(c) Bosanquet (d) Green

Q59. Which South Indian state has the highest groundwater utilization of its total potential

- (a) Kerala (b) Andhra Pradesh  
(c) Karnataka (d) Tamil Nadu

Q60. Which of the following is not present in viruses?

- (a) DNA (b) RNA  
(c) Proteins and Enzymes  
(d) Cytoplasm and Membranes

Q61. Among the following sedimentary rocks, which one is of organic origin?

- (a) Gypsum (b) Limestone  
(c) Nitre (d) Rock salt

Q62. The largest coastline in India is with the state of:

- (a) Tamil Nadu (b) Maharashtra  
(c) Andhra Pradesh (d) Gujarat

Q63. United Nations Organization came into existence in 1945 after the adoption of a charter at

- (a) Washington D.C. (b) New York  
(c) Philadelphia (d) San Francisco

Q64. The rate at which RBI gives finance to commercial banks is known as:

- (a) repo rate (b) bank rate  
(c) credit control (d) cash reserve ratio

Q65. The upper house of Pakistan's parliament is called

- (a) Senate (b) National Assembly  
(c) House' of Peers (d) People's Assembly

Q66. Which one of the following is not located at Fatehpur Sikri?

- (a) Panch Mahal (b) Jodha bai's Palace  
(c) Tomb of Salim Chishti (d) Jahangiri Mahal

67. In which session of the Congress was the demand for Poorna Swaraji adopted?"

- (a) Gaya Session (1922) (b) Lahore Session (1929)  
(c) Karachi Session (1931) (d) Ramgarh Session (1940)

Q68. The world's first floating nuclear power station was unveiled by:

- (a) USA (b) England  
(c) Russia (d) Japan

Q69. Which one among the following Harappan sites is situated in Rajasthan?

- (a) Kalibangan (b) Lothal  
(c) Banawali (d) Sulkagendor

Q70. The Lingayar Sect of Shaivism was prominent in:

- (a) Gujarat (b) Rajasthan  
(c) Karnataka (d) Tamil Nadu

Q71. Unemployment arising from economic fluctuation is called

- (a) Frictional unemployment  
(b) Disguised unemployment  
(c) Cyclical unemployment  
(d) Urban unemployment

Q72. Which of the following amendments reduced the voting age from 21 to 18 years?

- (a) 52<sup>nd</sup> Amendment (b) 86<sup>th</sup> Amendment  
(c) 61<sup>st</sup> Amendment (d) 93<sup>rd</sup> Amendment

Q73. The process of gathering, interpreting and using information related to social objects to understand human behavior is termed as

- (a) Social cognition (b) Social assessment  
(c) Social loafing (d) Social facilitation

Q74. "Animism" is the thinking that:

- (a) all things are living. (b) animals are divine  
(c) God dwells in nature.  
(d) inanimate objects are non living

Q75. How many members are nominated to state Legislative Council by the Governor?

- (a) One-Third (b) One-Twelve  
(c) One-Eight (d) One-sixth

Q76. If P is (-3,4) and Q the reflection of the point P in x axis and Point R is the reflection of image Q in y axis, then coordinates of point R are:

- (a) (3,4) (b) (-3,-4)  
(c) (-3,4) (d) (3,4)

Q77. ABCD is a quadrilateral with its vertices on a circle such that  $\angle A - \angle C = 20^\circ$  If  $\angle B - \angle D = 20^\circ$  then  $\angle D$  is equal to

- (a)  $80^\circ$   
(c)  $100^\circ$

- (b)  $60^\circ$   
(d)  $90^\circ$

Q78. Six men with the help of seven boys can complete a job in four days, four men with the help of twelve boys can do the same work in  $3\frac{15}{16}$  days. How long does one man take to do the jobs by himself?

- (a) 40 days  
(c) 36 days
- (b) 24 days  
(d) 28 days

Q79. Instead of a meter scale, a cloth merchant uses a 120 cm scale while buying, but uses an 80 cm scale while selling the same cloth. If he offers a 20 percent discount on cash payment, then his overall percent profit is.

- (a) 20%  
(c) 40%
- (b) 25%  
(d) 15%

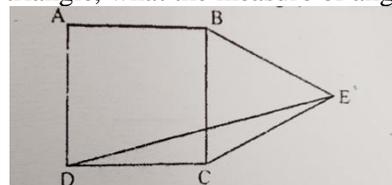
Q80. A and B run one kilometer race and A wins by 100 meters. When A and C run over the same course, A loses by 20 seconds. When B and C run the same course, C wins by 30 seconds. How long does it take B to run the kilometer?

- (a) 120 seconds  
(c) 110 seconds
- (b) 100 seconds  
(d) 95 seconds

Q81. The auto fare in Ahmadabad has the following formula based upon the meter reading. The meter is rounded up to the next higher multiple of 4. For instance, if the meter reading is 37 paise, it is rounded up to 40. The resultant is multiplied by 12. The final result is then rounded up to the nearest multiple of 25 paise. If 53 paise is the meter reading, what will be the actual fare?

- (a) Rs.6.75  
(c) Rs 6.25
- (b) Rs.6.50  
(d) Rs.7.50

82 If ABCD is a square and BCE is an equilateral triangle, what the measure of angle DEC?



- (a)  $15^\circ$   
(c)  $20^\circ$
- (b)  $30^\circ$   
(d)  $45^\circ$

Q83. In the AMU entrance exam the marking scheme was  $\frac{1}{4}$  marks for a wrong answer and 1 mark for a correct answer. In the Question Ability (QA) section Mr. A attempted all the questions (50 in all) and committed 10 mistakes. Had he reduced his mistakes by 50 percent, by what percentage would his score in QA increase?

- (a) 16.66%  
(c) 25%
- (b) 20%  
(d) 50%

Q84. What is the remainder when  $x^3+7x^3+3x+7$  is divided by  $(x+7)$  ?

- (a) 10  
(c) -14
- (b) -10  
(d) 14

Q85. ABC is an equilateral, PQRS is a square symmetrically inscribed in the triangle ABC so that one side PQ of the square is on BC, R and S are on the other sides AC and AB respectively. The AS/AB is equal to

- (a) 1:1  
(c)  $1:\sqrt{2}$
- (b)  $1:\sqrt{3}$   
(d)  $\sqrt{3}:2$

Q86. Two clocks commence striking a certain hour simultaneously, but the frequency of chiming of the first is different from that of the second. The third stroke of the first is coincident with the fourth stroke of the second and the first strikes three times after the second has stopped striking. What is the hour?

- (a) 9  
(c) 11
- (b) 10  
(d) 12

Q87. How many numbers less than 4000 can be formed using the digits 1,2,3 and 4?

- (a)  $3(4)^3$   
(c)  $3!$
- (b)  $4^4$   
(d)  $4^3(4 + \frac{1}{4} + \frac{1}{4}^2)$

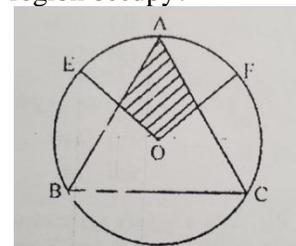
Q88. An equilateral triangle and a right angled triangle having the same base are inscribed within the same circle. What is the ratio of area of the equilateral triangle to area of the right angled triangle?

- (a) 3:2  
(c) 2:1
- (b) 3:4  
(d) 5:4

Q89. Patel sells two cows for Rs.10,000 each neither losing nor gaining in the deal. If he sold one cow at a gain of 66.6% find the loss (%) for another cow.

- (a) 66.66%  
(c) 28.56%
- (b) 33.33%  
(d) 50%

Q90. ABC is inscribed in a circle, whose center is O. What fraction of the area of the circle does the shaded region occupy?



- (a)  $\frac{3\sqrt{3}}{4\pi}$   
(c)  $\frac{3\sqrt{3}}{2\pi}$
- (b)  $\frac{\sqrt{3}}{\pi}$   
(d)  $\frac{\sqrt{3}}{2\pi}$

Q91. The price of Darjeeling tea (in rupees per kilogram) is  $100+0.10n$ , on the  $n^{\text{th}}$  day of 2007 ( $n=1,2,\dots,100$ ) and then remain constant. On the other hand the price of Ooty tea (in rupees per kilogram) is  $89+0.15n$  on the  $n^{\text{th}}$  day of 2007 ( $n=1,2,\dots,365$ ). On which date in 2007 will the price of these two varieties of tea be equal ?

- (a) April 11 (b) May 20  
(c) May 21 (d) Aug 9

Q92. When you reverse the digits of the number 13, the number increases by 18. How many other two digit numbers increase by 18 when their digits are reversed?

- (a) 5 (b) 6  
(c) 7 (d) 8

Q93. An equilateral triangle BPC is drawn inside a square ABCD. What is the value of the angle APD in degree?

- (a)  $75^{\circ}$  (b)  $120^{\circ}$   
(c)  $135^{\circ}$  (d)  $150^{\circ}$

Q94. A semicircle is drawn with AB as its diameter. From C a point on AB a line perpendicular to AB is drawn meeting the circumference of the semi circle at D. Given that  $AC=2$  cm and  $CD=6$ cm the area of the semi circle (in sq.cm) will be

- (a)  $32\pi$  (b)  $50\pi$   
(c)  $40.5\pi$  (d)  $81\pi$

Q95. If  $\frac{a}{b}=\frac{1}{3}$ ,  $\frac{b}{c}=2$ ,  $\frac{c}{d}=\frac{1}{2}$ ,  $\frac{d}{e}=3$  and  $\frac{e}{f}=\frac{1}{4}$  then what is the value of  $\frac{abc}{def}$

- (a)  $\frac{3}{8}$  (b)  $\frac{27}{8}$   
(c)  $\frac{3}{4}$  (d)  $\frac{27}{4}$

Q96. Consider a sequence where the  $n^{\text{th}}$  term,  $t_n = \frac{n}{(n+2)}$ ,  $n=1,2,3,\dots$ . The value of  $t_3 \times t_4 \times t_5 \times \dots \times t_{52}$  equals

- (a)  $\frac{2}{495}$  (b)  $\frac{2}{247}$   
(c)  $\frac{12}{55}$  (d)  $\frac{1}{1485}$

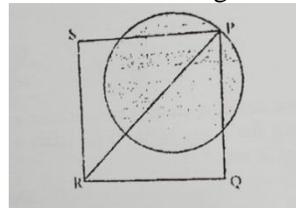
Q97. The length, breadth and height of a room are in the ratio 3:2:1. If the breadth and height are halved while the length is doubled, then the total area of the four walls of the room will

- (a) remain the same (b) decrease by 18.75%  
(c) decrease by 15% (d) decrease by 30%

Answer Questions 98 and 99 on the basis of the information given below

A punching machine is used to punch a circular hole of a diameter two units from a square sheet of aluminum of width 2 units, as shown below. The hole is punched such that the circular hole touches one corner P of the square

sheet and the diameter of the hole originating at P is in the line with a diagonal of the square.



Q98. The proportion of the sheet area that remains after punching is:

- (a)  $\frac{(\pi+2)}{8}$  (b)  $\frac{(6-\pi)}{8}$   
(c)  $\frac{(4-\pi)}{4}$  (d)  $\frac{(\pi-2)}{8}$

Q99. The area of the part of the circle (round punch) falling outside the square sheet

- (a)  $\frac{\pi}{4}$  (b)  $\frac{(\pi-1)}{4}$   
(c)  $\frac{(\pi-1)}{4}$  (d)  $\frac{(\pi-2)}{2}$

Q100. Two circles with center P and Q cut each other at two distinct points A and B. The circles have the same radii and neither P nor Q falls within the intersection of the circles. What is the smallest range that includes all possible values of the angle AQP in degrees?

- (a) Between  $0^{\circ}$  and  $30^{\circ}$  (b) Between  $0^{\circ}$  and  $60^{\circ}$   
(c) Between  $0^{\circ}$  and  $45^{\circ}$  (d) Between  $0^{\circ}$  and  $90^{\circ}$