

National Testing Agency

Question Paper Name :	ICMR Public Health 14th Sep 2024 Shift 2
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Public Health

Group Number :	1
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Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	150

Section A General Aptitude

Section Id :	74957213
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	42
Number of Questions to be attempted :	42
Section Marks :	50
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	74957221
Question Shuffling Allowed :	No

Question Id : 749572609 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

Question Label : Comprehension

Read the passage and answer the questions that follow :

The opportunity that beckons India is to make optimal use of technology, management, entrepreneurship and investments to overcome the challenges of this decade and beyond. Yesterday's goals cannot be a benchmark as India contemplates graduating to the company of the developed nations of the world. Our targets must be higher, our coverage more inclusive and above all, the methods to achieve must be unique.

Since, Independence, India as a nation has indeed made massive progress in almost every social and economic field. But, as we strive to have an economically developed nation by 2020, each incremental step opens up new vistas before us. After every few pages, we mark our place in history, heading for a new chapter of challenges not experienced earlier.

Following a steady decline in world income – from about 33 per cent in 0 CE to around 25 per cent in 1600 CE – India's share declined even further during the British Raj, falling sharply from about 16 per cent in 1820 CE, to less than 4 per cent at the time of Independence. Since Independence, there has been a steady rise in income, and the per capita national product has increased by more than five times, from Rs. 5,700 in 1950 to about Rs. 32,000 in 2008, and today, India's share in world income – purchasing power parity (PPP) – stands at about 6.3 per cent. But while the economy has been growing steadily and poverty, as a percentage, declining steadily, the absolute number of people below the poverty line has been constant.

Sub questions

Question Number : 1 Question Id : 749572610 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

According to the passage, use of the phrase "make optimal use of" means :

- (1) set a higher benchmark for growth
- (2) using the methods effectively and efficiently
- (3) experiment with new challenges
- (4) mark our place in history

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 2 Question Id : 749572611 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which word in the given passage means "without interruption"?

- | | |
|----------------|--------------|
| (1) Consistent | (2) Steady |
| (3) Optimal | (4) Constant |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 3 Question Id : 749572612 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

What does India need to become a developed nation?

- (A) Take rapid and incremental steps towards progress
- (B) Contemplate on only yesterday's goals
- (C) Make thoughtful usage of technology in various fields
- (D) Work steadily on economic indicators
- (E) Set higher, inclusive and unique targets

Choose the correct answer from the options given below :

- | | |
|------------------------|------------------------|
| (1) (A), (B), (C) only | (2) (B), (D), (E) only |
| (3) (A), (D), (E) only | (4) (C), (D), (E) only |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 4 Question Id : 749572613 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : Since Independence, there has been a steady rise in income and the increase of per capita national product by five times from ₹ 5,700 in 1947 to about ₹ 32,000 in 2008.

Statement II : Poverty has declined while the economy has grown but the absolute number of people below poverty line has been constant.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 5 Question Id : 749572614 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Read the given passage and Match List I with List II.

List I (India's share in world GDP)	List II (Year)
(A) 16 percent	(I) 0 CE
(B) 33 percent	(II) 1820 CE
(C) 25 percent	(III) 1947 CE
(D) 4 percent	(IV) 1600 CE

Choose the correct options given below :

- (1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (2) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Sub-Section Number : 2
Sub-Section Id : 74957222
Question Shuffling Allowed : No

Question Id : 749572615 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Question Numbers : (6 to 10) Question Label : Comprehension

Read the following passage and answer the questions that follow :

Let us discuss coal, another fossil fuel. Even though India has abundant quantities of coal, it is constrained by regional locations, a high ash content that affects the thermal efficiency of our power plants, besides which there are also environmental concerns. Thus, a movement towards energy independence would demand accelerated work in the production of energy from the coal sector through integrated gasification and a combined cycle route.

In 2030, the total energy requirement of the nation is expected to be 4,00,000 MW. By that time, if we were to follow the present route, the power generated from coal-based power plants would increase from the existing 80,000 MW to 2,00,000 MW. This would demand a significant build-up of thermal power stations and a large-scale expansion of coal fields, leading, naturally, to much higher levels of pollution.

The hydel capacity generated through normal water sources and by the interlinking of rivers is expected to contribute an additional 50,000 MW. Numerous large-scale solar energy farms with a capacity of hundreds of megawatts could together contribute around 55,000 MW. The nuclear power plants should have a target of 50,000 MW of power. At least 64,000 MW of electrical power should come from wind energy. The balance 51,000 MW has to be generated through conventional thermal plants, through coal and gas, and renewable sources of energy such as biomass, through burning municipal solid waste and solar thermal power. The most significant aspect, however, is that the power generated through renewable energy technologies has to be increased to 28 per cent from the present 5 per cent.

Sub questions

Question Number : 6 Question Id : 749572616 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

To meet the energy requirements of the nation, the power generation through renewable energy technologies should be :

- (1) increased from 80,000 MW to 4,00,000 MW
- (2) covering the remaining balance of 51,000 MW generated through various modes
- (3) accelerated through integrated gasification and combined cycle route
- (4) increased by 23 percent from the present 5 percent

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 7 Question Id : 749572617 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which word in the passage is the antonym of "rare"?

- | | |
|-----------------|----------------|
| (1) existing | (2) numerous |
| (3) significant | (4) additional |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 8 Question Id : 749572618 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following factor(s) are a reason behind the constrained utilization of coal as a fuel for generating energy?

- (A) low thermal efficiency of our power plants
- (B) regional locations
- (C) lack of integrated gasification
- (D) high ash content
- (E) environmental concerns

Choose the correct answer from the options given below :

- (1) (A), (B), (C) only
- (2) (B), (C), (D) only
- (3) (B), (D), (E) only
- (4) (B), (D), (A) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 9 Question Id : 749572619 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements that are based on the passage mentioned above :

Statement I : To meet the expected energy requirements in 2030, the power generation through renewable energy technologies has to be increased by percent.

Statement II : The balance 51,000 MW will be generated through conventional thermal plants.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 10 Question Id : 749572620 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II on the basis of the passage mentioned above :

List I (Power)	List II (Energy Source)
(A) 50,000 MW	(I) Wind energy
(B) 55,000 MW	(II) Thermal energy
(C) 51,000 MW	(III) Hydel energy
(D) 64,000 MW	(IV) Solar energy

Choose the correct options given below :

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (3) (A)-(III), (B)-(II), (C)-(IV), (D)-(I)
- (4) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3

4. 4

Sub-Section Number : 3
Sub-Section Id : 74957223
Question Shuffling Allowed : Yes

Question Number : 11 Question Id : 749572621 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

If it was Saturday on 17th December, 2002, what was the day on 26th December 2004?

- (1) Monday
- (2) Sunday
- (3) Tuesday
- (4) Thursday

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 12 Question Id : 749572622 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Study the given pattern and select the number that can replace question mark in the given matrix :

11	103	9
13	157	6
15	?	7

- (1) 175
- (2) 196
- (3) 211
- (4) 225

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 13 Question Id : 749572623 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

If in a certain code language 'FRIEND' is written as 'JPMCRB', 'UNCLE' is written as 'YLGJI', then what will be the code for 'LEADER'?

- | | |
|------------|------------|
| (1) QCDBIP | (2) PDFBDL |
| (3) PCEBIP | (4) RBFCNR |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 14 Question Id : 749572624 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Find the missing number from the given alternatives.

$$\begin{array}{c} 9 \\ 5 \quad \textcircled{61} \quad 3 \\ 6 \end{array}$$

$$\begin{array}{c} 8 \\ 4 \quad \textcircled{?} \quad 2 \\ 3 \end{array}$$

$$\begin{array}{c} 11 \\ 3 \quad \textcircled{125} \quad 1 \\ 2 \end{array}$$

- | | |
|--------|--------|
| (1) 41 | (2) 56 |
| (3) 67 | (4) 79 |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 15 Question Id : 749572625 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

If, $P \times Q$ means P is the husband of Q.

$P + Q$ means P is the father of Q.

$P - Q$ means P is the mother of Q.

$P \div Q$ means P is the sister of Q.

Then, which of the following relations shows that C is the paternal grandfather of D?

(1) $C \times B - E \div D + A$

(2) $C + A \times B \div E \div D$

(3) $C + B \times A - E \div D$

(4) $C \times B \div E + A - D$

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 16 Question Id : 749572626 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In this question a number series is given. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

856, 849, 824, 763, ?, 431

(1) 681

(2) 642

(3) 535

(4) 495

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 17 Question Id : 749572627 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Sunita starts from her home towards North. After walking 15 meters, she turned to her right and walked 55 meters. Then she turned to her left and after walking a distance of 20 meters turned to her left again and walked 67 meters. What is the shortest distance between her home and final position and what is the direction of final position with respect to her home?

(1) 26 m, North-West

(2) 35 m, North-East

(3) 37 m, North-West

(4) 49 m, North-East

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 18 Question Id : 749572628 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Seven friends A, B, C, D, E, F and G are sitting on a straight bench all facing north. There are exactly three friends sitting between A and B. D is sitting to the left of B. Only one friend is sitting to the left of A. B is sitting immediately left of F. Only one friend is sitting between D and A. Who is sitting at the extreme right end?

- | | |
|-------|-------|
| (1) E | (2) F |
| (3) C | (4) D |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 19 Question Id : 749572629 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Select the option that is related to the third term in the same way as the second term is related to the first term and the sixth term is related to the fifth term.

BSNT : YXGC :: MXRV : ? :: FPCY : CUVH

- | | |
|----------|----------|
| (1) JDKE | (2) JCKD |
| (3) JCKE | (4) JCLE |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 20 Question Id : 749572630 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

A cube is painted black on two adjacent faces and on one apposite face, yellow on two apposite faces and green on the remaining face. It is then cut into 64 equal cubes. How many cubes have one black coloured face only?

- | | |
|--------|--------|
| (1) 12 | (2) 24 |
| (3) 16 | (4) 8 |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 21 Question Id : 749572631 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In the given question, two statements are given followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statements : All Hammers are pliers. All screws are pliers.

Conclusions I : Some hammers are screws.

II : Some screws are hammers is a possibility.

- (1) Both Conclusions I and II follow
- (2) Both Conclusions I and II do not follow
- (3) Conclusion I follows but conclusion II does not follow
- (4) Conclusion I does not follow but conclusion II follows

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 22 Question Id : 749572632 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In this question there is a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumption(s) is/are implicit in the statement.

Statement : Rohan always studies from the reference books of publication X for his competitive exams.

Assumptions I : Many of the questions asked in competitive exams are from the reference books of publication X.

II : Studying from reference books are necessary for competitive exams.

- (1) Only Assumption I is implicit
- (2) Only Assumption II is implicit
- (3) Neither assumption I nor II is implicit
- (4) Both assumptions I and II are implicit

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 23 Question Id : 749572633 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Following table provides the marks obtained by four friends in five different subjects. Maximum marks in each subject are 100.

Friends	Physics	Chemistry	Mathematics	English	Physical Education
Rahul	89	92	79	81	90
Vinay	75	96	85	86	92
Abeer	94	90	89	77	90
Sudesh	93	91	84	86	92

Who has scored exactly 88% marks in total?

- (1) Rahul
- (2) Vinay
- (3) Abeer
- (4) Sudesh

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 24 Question Id : 749572634 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In this question there is a statement, followed by two courses of action numbered I and II. You have to assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the suggested courses of action logically follow(s) for pursuing.

Statement : A large number of people got ill due to eating cut fruits from road side shops.

Courses of Action I. Municipal corporation should penalize the road side vendors if they sell cut fruits.

II. People should be made aware about the dangers of eating cut fruits sold in open.

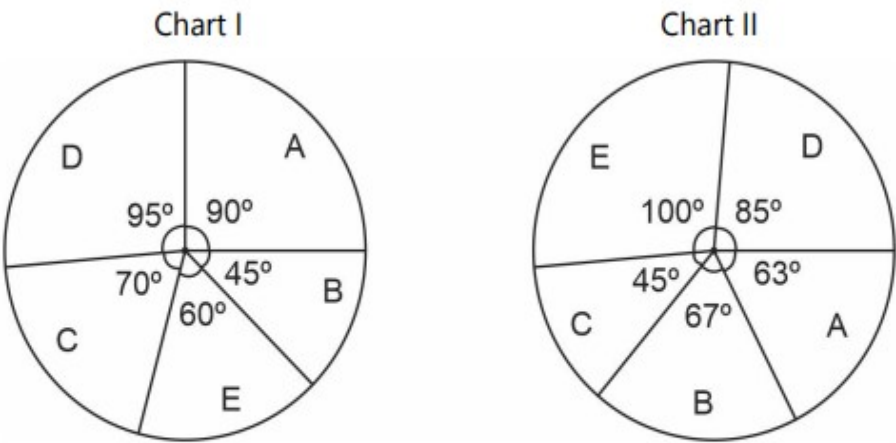
- (1) Only I follows
- (2) Only II follows
- (3) Neither I nor II follows
- (4) Both I and II follow

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 25 Question Id : 749572635 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The following pie chart show the distribution of students appearing in the Board examination (Chart I) and the students who have passed the Board examination (Chart II) from the different schools A, B, C, D and E.



Total number of students appeared = 1800

Which school has the lowest percentage of students passed with respect to those appeared?

- (1)

A
- (2)

B
- (3)

C
- (4)

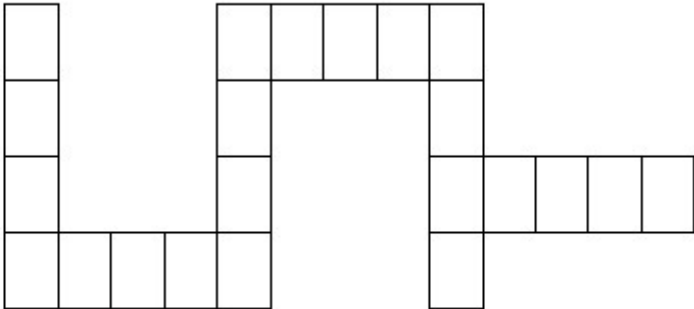
D

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 26 Question Id : 749572636 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

How many rectangles are there in the given figure?



- (1)

65
- (2)

70
- (3)

75
- (4)

80

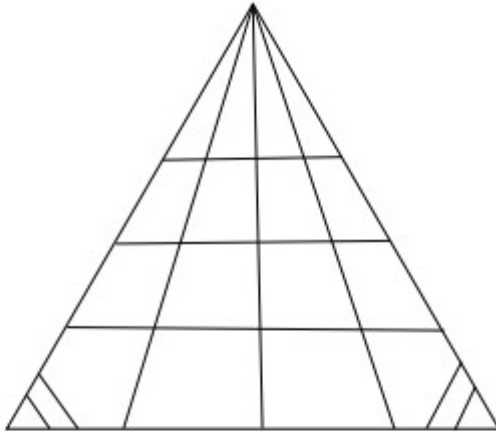
Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 27 Question Id : 749572637 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

How many triangles are there in the given figure?



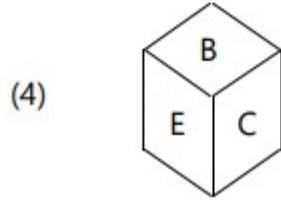
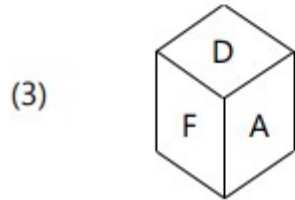
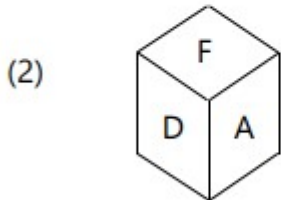
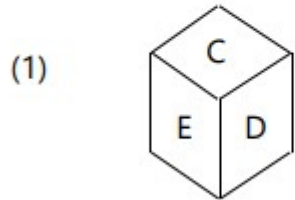
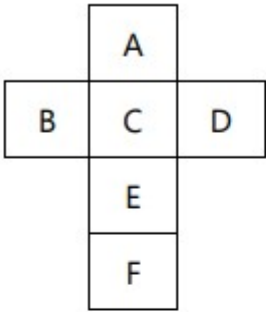
- | | |
|--------|--------|
| (1) 26 | (2) 34 |
| (3) 44 | (4) 46 |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 28 Question Id : 749572638 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Select the box that cannot be formed by folding the given unfolded box.

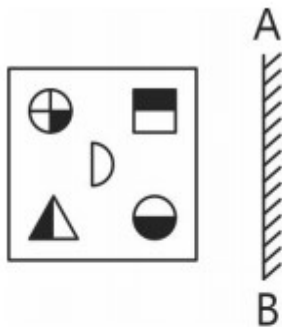


Options :

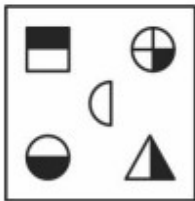
- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 29 Question Id : 749572639 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

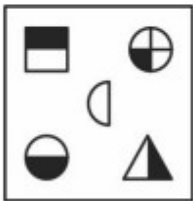
Choose the correct mirror image of the given figure when the mirror is placed at line AB.



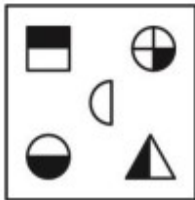
(1)



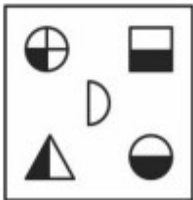
(2)



(3)



(4)

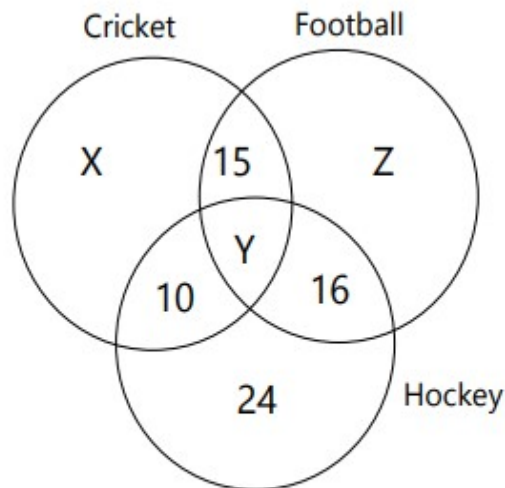


Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 30 Question Id : 749572640 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Study the Venn diagram and answer the question. The alphabets and numbers in different sections indicate the number of persons who play different games in a school.



If the total number of persons who play games in the school is 108 and the number of persons who play at least two games is 54, find the number of persons who play all the three games.

- | | |
|--------|--------|
| (1) 11 | (2) 13 |
| (3) 19 | (4) 21 |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 31 Question Id : 749572641 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

If 'AMAN' is written as 'CLCM' in a certain code then in the same code 'ARUN' is written as

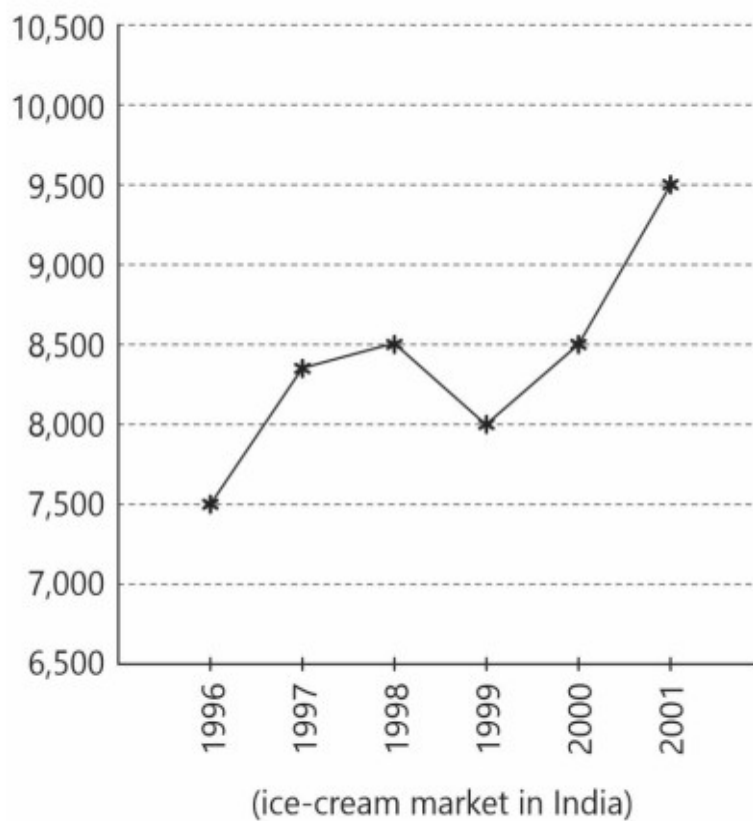
- | | |
|----------|----------|
| (1) CQWO | (2) CQVM |
| (3) CPWM | (4) CQWM |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 32 Question Id : 749572642 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Direction : Refer the chart below and answer the question. What is annual average rate of increase in the ice-cream market from 1996 to 2001?



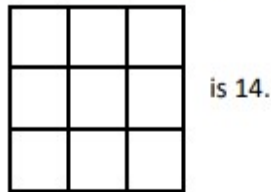
- | | |
|-----------|------------|
| (1) 5.33% | (2) 26.67% |
| (3) 6.67% | (4) 10% |

Options :

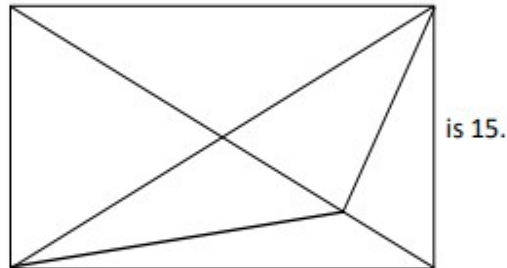
1. 1
2. 2
3. 3
4. 4

Question Number : 33 Question Id : 749572643 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Statement I : The number of squares in the figure.



Statement II : The number of triangles in the figure.



In the light of the above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but statement II is false
- (4) Statement I is false but statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 34 Question Id : 749572644 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Statement I : The mirror-image of U T Z F Y 6 K H is H K Ø Y J S T U.

Statement II : The water-image of D 6 Z 7 F 4 is D Ø S Δ E ¶.

In the light of above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but statement II is false
- (4) Statement I is false but statement II is true

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 35 Question Id : 749572645 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

If ‘-’ means ‘÷’ means ‘+’ means ‘×’, ‘÷’ means ‘-’, ‘×’ means ‘+’, then which of the following equations is correct?

- (1) $52 \div 4 + 5 \times 8 - 2 = 36$
- (2) $43 \times 7 \div 5 + 4 - 8 = 25$
- (3) $36 \times 4 - 12 + 5 \div 3 = 420$
- (4) $36 - 12 \times 6 \div 3 + 4 = 60$

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 36 Question Id : 749572646 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Complete the figure matrix.

↑ ↑	↑ ↓	↓ ↑
↑ →	↑ ←	↓ →
↑ ↓	?	↓ ↓

- (1)

↑

↑
- (2)

↓

↑
- (3)

↑

↓
- (4)

↑

→

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 37 Question Id : 749572647 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

A cube whose two adjacent faces are coloured is cut into 64 identical small cubes.
How many of these small cubes are not coloured at all?

- | | |
|--------|--------|
| (1) 60 | (2) 48 |
| (3) 36 | (4) 32 |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 38 Question Id : 749572648 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

A dealer marks his goods at 20% above the cost price and allows a discount of 16% on the marked price. What is his gain percentage?

- | | |
|----------|-----------|
| (1) 1% | (2) 2% |
| (3) 0.8% | (4) 0.08% |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 39 Question Id : 749572649 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

If $2a = 3b = 4c = 6d$, then value of $\frac{a^2 + b^2}{c^2 + d^2}$, is :

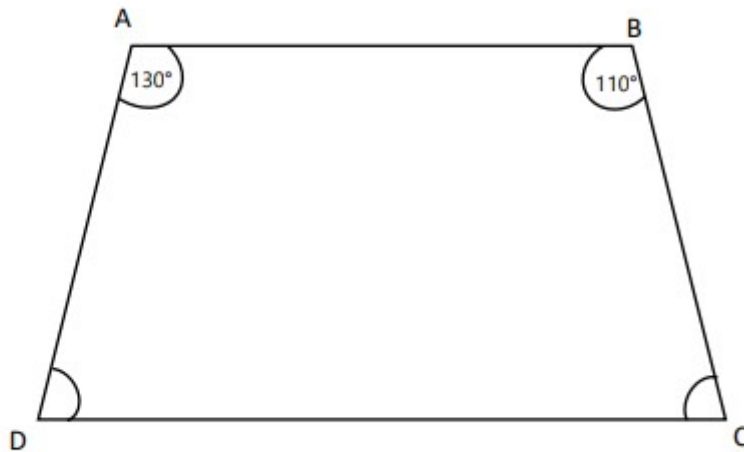
- | | |
|-------------------|-------------------|
| (1) $\frac{2}{3}$ | (2) 4 |
| (3) $\frac{1}{6}$ | (4) $\frac{7}{3}$ |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 40 Question Id : 749572650 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In trapezium $ABCD$, in which $AB \parallel DC$,



$\angle A = 130^\circ$ and $\angle B = 110^\circ$. What is the value of $\angle C - \angle D$?

- | | |
|-----------------|----------------|
| (1) 10° | (2) 20° |
| (3) -20° | (4) 40° |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 41 Question Id : 749572651 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In a town, 65% people watched the news on television, 40% read a newspaper and 25% read a newspaper and watched the news on television also. What percent of the people neither watched the news on television nor read a newspaper?

- | | |
|--------|--------|
| (1) 10 | (2) 14 |
| (3) 16 | (4) 20 |

Options :

1. 1
2. 2
3. 3

4. 4

Question Number : 42 Question Id : 749572652 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

- (A) The missing term of the series
4, 8, 28, 80, 244, ? , is 728.
- (B) The missing term of the alphabet series
UPI, SHJ, ODP, MBQ, ? is IAV.
- (C) The missing term of the letter – number series
Q1F, S2E, U6D, W21C, ? is Y88B.
- (D) The missing term of the letter – number series
D–4, F–6, H–8, J–10, ? is L–22

Choose the correct answer from the options given below :

- (1) (A) and (C) only
- (2) (A), (B) and (C) only
- (3) (B), (C) and (D) only
- (4) (B) and (D) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 43 Question Id : 749572653 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The ratio of the ages of man and his wife is 4 : 3. After 4 years, this ratio will be 9 : 7. If at the time of their marriage, the ratio of their ages was 5 : 3, then how many years ago were they married?

- | | |
|--------|--------|
| (1) 8 | (2) 10 |
| (3) 12 | (4) 15 |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 44 Question Id : 749572654 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

Read the following information and answer the question :

Alka is older than Mala. Gopal is older than Mala but younger than Alka. Kapil is younger than Ram and Mala. Mala is older than Ram.

- (A) Mala's age is between Gopal and Ram.
- (B) Gopal age is between Mala and Kapil.
- (C) Mala lies in the middle.
- (D) Alka is the youngest.
- (E) Kapil is the eldest.

Choose the correct answer from the options given below :

- (1) (C) and (E) only
- (2) (B), (D) and (E) only
- (3) (A), (C) and (D) only
- (4) (A) and (C) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 45 Question Id : 749572655 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Direction : Study the table carefully and answer the question :

Number of washing machines and refrigerators manufactured by a company.

	2005	2006	2007	2008	2009
Washing machine	14400	20500	12800	16400	18600
Refrigerator	12800	24700	19200	20200	14900

Find, what was the difference in the total number of washing machines and refrigerators manufactured in 2006 to the total number of washing machines and refrigerators manufactured in 2008?

- (1) 6,800
- (2) 5,600
- (3) 8,600
- (4) 8,200

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 46 Question Id : 749572656 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : A compound interest on a certain sum for 2 years at 10% per annum is ₹ 525. The simple interest on the same sum for double the time at half the rate percent per annum is ₹ 500.

Statement II : The respective ratio of milk and water in the mixture is 4 : 3. If 6 litres of water is added to this mixture, the respective ratio of milk and water becomes 8 : 7, then the quantity of milk in the original mixture is 24 litres.

In the light of the above statements, choose the most appropriate answer from the options :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but statement II is incorrect
- (4) Statement I is incorrect but statement II is correct

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 47 Question Id : 749572657 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

If $x + \frac{1}{x} = 10$, then what is the value of $\left(x^2 - \frac{1}{x^2}\right)^2$?

- | | |
|-----------|-----------|
| (1) 9,600 | (2) 9,604 |
| (3) 9,608 | (4) 9,610 |

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 48 Question Id : 749572658 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

A sector of a circle of radius 6 cm is formed with central angle 60° . What will be its area (in cm^2)? (Here ' π ' refers to $\frac{22}{7}$)

(1) $\frac{3}{4}\pi$

(2) $\frac{5}{4}\pi$

(3) 6π

(4) 12π

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 49 Question Id : 749572659 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

How many four digit numbers can be formed by using the digits 0, 1, 3, 7 if repetition of digits are allowed?

(1) 160

(2) 500

(3) 2400

(4) 2500

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 50 Question Id : 749572660 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

What is the difference between simple interest and compound interest on sum ₹ 10,000 at the rate of 10% per annum for the period of two years?

(1) ₹ 110

(2) ₹ 100

(3) ₹ 150

(4) ₹ 160

Options :

1. 1
2. 2
3. 3
4. 4

Section B Cross Disciplinary

Section Id :	74957214
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	50
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	74957224
Question Shuffling Allowed :	Yes

Question Number : 51 Question Id : 749572661 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

A short microtubular organelle projecting into extra cellular medium used for locomotion

- | | |
|------------------|----------------|
| (1) Cisternae | (2) Cilium |
| (3) Pesudopodium | (4) Basal Body |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 52 Question Id : 749572662 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Organelle that is involved in carbohydrate digestion, autophagy, hydrolysis etc.

- | | |
|----------------|------------------|
| (1) Golgi body | (2) Nucleus |
| (3) Lysosome | (4) Mitochondria |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 53 Question Id : 749572663 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Microtubular protein having ATPase activity and required for movement

- | | |
|--------------|-----------------|
| (1) Ecdysone | (2) Fibronectin |
| (3) Dynein | (4) Sarcopin |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 54 Question Id : 749572664 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following principle of bioethics emphasizes the importance of minimizing harm and maximizing benefits in health care decisions?

- | | |
|-----------------|---------------------|
| (1) Justice | (2) Autonomy |
| (3) Beneficence | (4) Non-maleficence |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 55 Question Id : 749572665 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following ethical principle supports the idea that health care resources should be distributed fairly among individuals and communities?

- | | |
|---------------------|----------------------|
| (1) Confidentiality | (2) Informed consent |
| (3) Justice | (4) Beneficence |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 56 Question Id : 749572666 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II.

List I	List II
(A) Released by anterior pituitary and affects the adrenal gland	(I) FSH
(B) Influences extracellular fluid volume	(II) Oxytocin
(C) Stimulates estrogen secretion and egg maturation in females	(III) ADH
(D) Causes uterine contractions during child birth	(IV) ACTH

Choose the correct options given below :

- (1) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (2) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 57 Question Id : 749572667 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : An endocrine gland releases substances through tubes or ducts.

Statement II : An exocrine gland releases substances it makes directly into the fluid bathing the glands.

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but statement II is false
- (4) Statement I is false but statement II is true

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 58 Question Id : 749572668 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II.

List I	List II
(A) Mechanoreceptor	(I) Detects change in water volume of a solution
(B) Nociceptor	(II) Responds to heat or cold
(C) Osmoreceptor	(III) Detects tissue damage
(D) Thermoreceptor	(IV) Detects changes in pressure, position or acceleration

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (2) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 59 Question Id : 749572669 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following connective tissues has a matrix of collagen and elastin fibres in a rubbery ground substance?

- | | |
|---------------|-----------|
| (1) Adipose | (2) Bone |
| (3) Cartilage | (4) Blood |

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 60 Question Id : 749572670 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

All of the following acts as anaphylotoxins EXCEPT

- | | |
|---------|---------|
| (1) C3a | (2) C4a |
| (3) C5a | (4) C6a |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 61 Question Id : 749572671 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The mechanism by which B cells ensure that only one heavy and one light chain allele is translated is referred to as

- | | |
|------------------------|-------------------------|
| (1) Co-dominance | (2) Allelic exclusion |
| (3) Isotypic selection | (4) Idiotypic selection |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 62 Question Id : 749572672 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements regarding Major Histocompatibility Complex (MHC).

Statement I : MHC I contains two different polypeptide chains – α chain and β chain.

Statement II : MHC I is present on all nucleated cells.

In the light of the above two statements, select the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Statement I is correct but Statement II is incorrect
- (3) Statement I is not correct but Statement II is correct
- (4) Both Statement I and Statement II are not correct

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 63 Question Id : 749572673 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The function of the 3' to 5' exonuclease activity of a DNA polymerase is to :

- (1) Remove the 5' end of the polynucleotide strand that is attached to the template strand that is being copied
- (2) Remove incorrect nucleotides from the newly synthesized strand of DNA
- (3) Remove damaged nucleotide from the template strand during DNA synthesis
- (4) Remove nucleotides from the ends of DNA molecules to ensure the generation of blunt ends

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 64 Question Id : 749572674 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Identify which of the following tests is the most convincing to identify a gene as oncogene or tumor suppressor gene.

- (1) Transgenic mice overexpressing the candidate oncogene and knock-out mice lacking the candidate tumor suppressor gene
- (2) Transgenic mice overexpressing the candidate tumor suppressor gene and knock-out mice lacking the candidate oncogene
- (3) Transgenic mice that overexpresses the candidate oncogene and tumor suppressor gene
- (4) Knockout mice that lacks the candidate oncogene and tumor suppressor gene

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 65 Question Id : 749572675 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

A study is done on a mammalian cell line that has a doubling time of 24 hours. These cells are synchronized in G1 and then labeled for 2 days with BrdU (an analog of thymidine). At the end of labeling period, chromosomal DNA is isolated from the cells and its density analyzed by equilibrium centrifugation in cesium chloride gradients. Which of the following patterns would be expected to be seen? (H = heavy, L = light)

- | | |
|----------------------|----------------------|
| (1) 100% H/H | (2) 100% H/L |
| (3) 50% H/H, 50% H/L | (4) 50% H/H, 50% L/L |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 66 Question Id : 749572676 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Identify the correct order in which extra-cellular signals are transmitted.

- (A) Adenylate cyclase
- (B) cAMP
- (C) Protein kinase A

Choose the correct answer from the options given below :

- | | |
|-------------------|-------------------|
| (1) (A), (B), (C) | (2) (C), (B), (A) |
| (3) (A), (C), (B) | (4) (B), (C), (A) |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 67 Question Id : 749572677 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not a function of the lysosomes?

- (1) Engulf worn-out components of the cells
- (2) Engulf exogeneous substances
- (3) Suicidal bags
- (4) Power generating units

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 68 Question Id : 749572678 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : In Anaphase I, homologous chromosomes separate which sister chromatids remain together.

Statement II : In Anaphase II, chromosomes line up along the metaphase plate.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 69 Question Id : 749572679 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The function of the hepatic portal circulation is to :

- (1) carry toxins to the venous system for disposal through the urinary tract
- (2) hormone distribution
- (3) collect absorbed nutrients for metabolic processing or storage
- (4) transfer bile to the liver from the pancreas

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 70 Question Id : 749572680 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following statements is incorrect?

- (1) Aldosterone stimulates the reabsorption of Na^+
- (2) Aldosterone affects water resorption
- (3) Aldosterone is made in the hypothalamus and released from the anterior pituitary
- (4) Aldosterone stimulates the secretion of K^+

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 71 Question Id : 749572681 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Regarding BLAST (Basic Local Alignment Search Tool) all the following statements are correct EXCEPT :

- (1) The tool is used to compare newly sequenced genomic DNA to known sequences stored in various databases
- (2) Once aligned the result is showed as output of three lines : Query, Sbject (Subject) and human sequence
- (3) Access to BLAST is provided by NCBI
- (4) BLAST report also provides an 'Expect' value or E value based on number of matches

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 72 Question Id : 749572682 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements ; in which one is Assertion (A) and the other one is Reason (R) :

Assertion (A) : Cri du chat syndrome is a classical example of endopolyploidy in human.

Reasoning (R) : In Cri du chat syndrome there is partial monosomy resulting from small terminal deletion involving chromosome 5.

In the light of above statements choose the correct answer :

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (2) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (3) (A) is true but (R) is false
- (4) (A) is false but (R) is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 73 Question Id : 749572683 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : The genetic code is written in linear form with three nucleotide letters, thus referred as triplet code.

Statement II : The coding system is highly variable, in different organisms one triplet code can specify different amino acids in different organisms.

In the light of the above statements, choose the correct answer from the options :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but statement II is false
- (4) Statement I is false but statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 74 Question Id : 749572684 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In a pedigree, the first person identified to be suffering from a genetic disease is called as :

- | | |
|----------------|----------------|
| (1) Consultant | (2) Proband |
| (3) Kindred | (4) Consultand |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 75 Question Id : 749572685 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Two hypothetical SNPs (Single Nucleotide Polymorphism) in humans are 4 map units (m.u.) apart. The allele at SNP1 can be A or T ; the allele at SNP2 can be C or G. A male with genotype AG/TC and a female with genotype AC/AC have a child. What is the probability they have a child with genotype AG/AC?

- | | |
|---------|---------|
| (1) 96% | (2) 4% |
| (3) 48% | (4) 16% |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 76 Question Id : 749572686 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The clover leaf structure is a unique feature of which of the following molecules?

- | | |
|-----------------------------|-----------------------------|
| (1) 28S subunit of ribosome | (2) Unspliced mRNA molecule |
| (3) Spliced tRNA molecule | (4) Pre-processed sno RNA |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 77 Question Id : 749572687 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

An autosomal recessive condition affects 1 new born in 10,000. What is the expected frequency of carriers?

- | | |
|----------------|---------------|
| (1) 198/10,000 | (2) 99/10,000 |
| (3) 1/100 | (4) 99/100 |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 78 Question Id : 749572688 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The Hardy Weinberg principle is integral to population genetics. All of the following options can disturb the Hardy Weinberg equilibrium EXCEPT

- | | |
|-------------------|---------------------------|
| (1) Random mating | (2) Mutation |
| (3) Gene Flow | (4) Small population size |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 79 Question Id : 749572689 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In genetic linkage, the concept of recombination fraction is very important, of the characteristics given here, choose the correct ones.

- (A) Recombination fraction is usually designated as θ (theta)
- (B) It is the measure of the distance separating two loci on different chromosomes
- (C) It gives an indication of the likelihood that a cross-over will occur between the two loci
- (D) Genes at loci are not linked then $\theta = 0.5$
- (E) Genes at unlinked loci will segregate together during 20% of all meiosis
- | | |
|-------------------|-------------------|
| (1) (B), (C), (E) | (2) (A), (D), (E) |
| (3) (A), (C), (D) | (4) (A), (B), (C) |

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 80 Question Id : 749572690 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The process of genetic counselling involves various steps. These steps have been randomised and listed below. From the options given below, choose the correct sequence in which the counselling steps should be undertaken/performed.

- (A) Risk assessment
- (B) Diagnosis based on history and investigation
- (C) Long term contact and support group
- (D) Discussion of options

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 81 Question Id : 749572691 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In which stage of the cell cycle, the cells double their amount of DNA?

- | | |
|--------------|--------------|
| (1) G1 phase | (2) G2 phase |
| (3) M phase | (4) S phase |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 82 Question Id : 749572692 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In Eukaryotes, citric acid cycle takes place in

- | | |
|------------------|------------------|
| (1) Nucleus | (2) Cytoplasm |
| (3) Mitochondria | (4) Golgi bodies |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 83 Question Id : 749572693 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

What is the approximate molecular mass of polypeptide containing 100 amino acid residues?

- | | |
|---------------|---------------|
| (1) 300 Da | (2) 11,000 Da |
| (3) 30,000 Da | (4) 110 Da |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 84 Question Id : 749572694 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Human genomic DNA isolated with concentration of 400 µg/ml, needs to be digested with restriction enzyme Bam H1 (2000 U/ml). Investigator needs to set reaction with 10 µg of genomic DNA with 10 units of enzyme. How much volume (in µl – micro litre) needs to be drawn from the two stock solutions respectively to get 10 µg of DNA and 10 U of enzyme?

- (1) DNA stock – 25µl Enzyme – 5 µl
- (2) DNA stock – 35µl Enzyme – 7.5 µl
- (3) DNA stock – 27.5µl Enzyme – 7.5 µl
- (4) DNA stock – 10µl Enzyme – 10 µl

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 85 Question Id : 749572695 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match the List I with List II.

List I	List II
(A) Taq DNA polymerase	(I) used to make cDNA
(B) MMLV Reverse Transcriptase	(II) used to phosphorylate oligos or DNA
(C) RNA polymerase II	(III) used to amplify DNA
(D) T ₄ polynucleotide kinase	(IV) Transcription particularly of mRNA, LncRNA

Choose the correct options given below :

- (1) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (4) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 86 Question Id : 749572696 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Select the correct primer pair of forward and reverse primer sequence that amplify full length of sequence given below :

5' – TAC TAT CGA GTA CTA GAC TAC TAAGT 1 – 100 – 1 ACT, AGA, CGT ACG, TAG, TAC, GTT ACT AC – 3'

- (1) 5' – ATG ATA GCT CAT GAT CTG AT – 3' Forward
5' – GTA GTA ACG TAC TAC GTA CG – 3' Reverse
- (2) 5' – TAC TAT CGA GTA CTA GAC TA – 3' Forward
5' – GTA GTA ACG TAC TAC GTA CG – 3' Reverse
- (3) 5' – ATG ATA GCT CAT GAT CTG AT – 3' Forward
5' – GCA TGC ATC ATG CAA TGA TG – 3' Reverse
- (4) 5' – TAG TCT AGT ACT CGA TAG TA – 3' Forward
5' – GCA TGC ATC ATG CAA TGA TG – 3' Reverse

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 87 Question Id : 749572697 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

_____ variant of BLAST, compares a DNA query sequence to the protein database.

- | | |
|-------------|-------------|
| (1) BLASTP | (2) BLASTX |
| (3) BLAST N | (4) TBLASTN |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 88 Question Id : 749572698 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which one of the following is not a primary database?

- | | |
|------------------|--------------|
| (1) SWISS – PROT | (2) EMBL |
| (3) DDBJ | (4) Gen Bank |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 89 Question Id : 749572699 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The computational approaches to predict the three-dimensional structures of proteins are :

- (A) Homology modeling
- (B) X-ray crystallography
- (C) NMR
- (D) Threading
- (E) Ab-initio

Choose the correct answer from the options given below:

- (1) (A) only
- (2) (B) and (C) only
- (3) (A), (D) and (E) only
- (4) (C) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 90 Question Id : 749572700 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

What happens to transferrin when iron is bound to it and it interacts with its receptor?

- (1) It is degraded inside the lysosome
- (2) Undergoes a conformational change allowing binding to its receptor
- (3) It is converted to apotransferrin
- (4) Permanently internalized and degraded

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 91 Question Id : 749572701 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which non-viral gene delivery method utilizes physical forces to introduce genetic material into cells?

- | | |
|---------------------|---------------------|
| (1) Liposomes | (2) Poly (L-lysine) |
| (3) Electroporation | (4) Adenoviruses |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 92 Question Id : 749572702 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which protein is responsible for cleaving double stranded RNA into smaller fragments during RNA interference?

- | | |
|------------|--------------|
| (1) Slicer | (2) Helicase |
| (3) RISC | (4) Dicer |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 93 Question Id : 749572703 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

What is the main advantage of using Short Tandem Repeats (STRs) over restriction fragment length polymorphism (RFLP) in DNA fingerprinting?

- (1) STRs are easier to visualize on a gel
- (2) STRs requires less DNA and are more resistant to degradation
- (3) STRs produce more distinct band pattern
- (4) STRs are less expensive to analyze

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 94 Question Id : 749572704 Question Type : MCQ Option Shuffling : No

Correct Marks : 1 Wrong Marks : 0.25

Which of the following steps in PCR is responsible for separating double-stranded DNA into single strands?

- | | |
|---------------|----------------|
| (1) Annealing | (2) Extension |
| (3) Melting | (4) Elongation |

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 95 Question Id : 749572705 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match the following :

List I	List II
(A) Autotroph	(I) Macro consumers
(B) Phagotrops	(II) Micro consumers
(C) Saprotrops	(III) Primary producers
(D) Heliotrophs	(IV) Sun loving plants

Choose the correct answer from the options given below :

- (1) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (3) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)
- (4) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 96 Question Id : 749572706 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The reductive pentose phosphate pathway is also known as

- (A) Photosynthetic Carbon Oxidation cycle (PCO)
- (B) Calvin – Benson cycle
- (C) Photorespiration
- (D) C4 cycle

Choose the correct answer from the options given below :

- (1) Both (A) and (B) are correct
- (2) Both (B) and (C) are correct
- (3) (B) only
- (4) (C) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 97 Question Id : 749572707 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Cortisones, used in the treatment of rheumatoid arthritis, are produced from fermentation of _____ by *Rhizopus migrans*.

- | | |
|-----------------|------------|
| (1) Amino acids | (2) Lipids |
| (3) Glycosides | (4) Starch |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 98 Question Id : 749572708 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In cell cycle there are 4 stages. M, G1, S and G2. There is another term commonly used ; G0 phase. Choose the best described statement for this G0 phase.

- (1) Cells are at growing stage
- (2) Cells are at the stage of differentiation
- (3) Cells have ceased to divide
- (4) Cells are about to double

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 99 Question Id : 749572709 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Based on series of events outlined in Central Dogma, there are enzymes that convert from one stage to the other. However, one conversion is not possible yet. Identify the stage :

- | | |
|----------------|--------------------|
| (1) DNA to RNA | (2) Protein to RNA |
| (3) DNA to DNA | (4) RNA to DNA |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 100 Question Id : 749572710 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In lactose operon, the following events happen.

- (A) The operon is normally in an "off" mode when appropriate substrate is absent.
- (B) Lactose is an inducer substrate.
- (C) If lactose is added to the cell's environment, it triggers events that turn the operator "on".
- (D) The structural genes are transcribed in 3 different transcripts coding for all three different enzymes.
- (E) As lactose is depleted, operon is repressed.

Which of the answers is correct?

- | | |
|-------------------|-------------------|
| (1) (A), (B), (C) | (2) (B), (C), (D) |
| (3) (A), (D), (E) | (4) (C), (D), (E) |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Section C Public Health

Section Id :	74957215
Section Number :	3
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	50
Number of Questions to be attempted :	50
Section Marks :	50
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	74957225
Question Shuffling Allowed :	Yes

Question Number : 101 Question Id : 749572711 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

As per the biomedical waste management rules, 2016 cotton swabs contaminated with blood should be disposed in the following container :

- (A) Red-coloured non-chlorinated plastic bags / containers
- (B) Blue coloured boxes
- (C) Yellow coloured non-chlorinated plastic bags / containers
- (D) Green coloured plastic bags

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 102 Question Id : 749572712 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

The following statements pertain to the provisions of the ESI Act (Amendment) of 1975; the eligible establishments are

- (A) Small factories employing 10 or more persons, only if power is utilized for manufacturing process
- (B) Cinemas and theatres
- (C) Shops
- (D) Hotels and restaurants

Choose the correct answer from the options given below :

- (1) Statements (A) and (B) are correct
- (2) Only Statement (A) is correct
- (3) Only Statements (A), (B) and (D) are correct
- (4) Only Statements (B), (C) and (D) are correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 103 Question Id : 749572713 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Please read the statements given below :

- (A) Health is a state of complete physical and mental well-being
- (B) Health is a state of absence of disease
- (C) Health is the ability to lead a socially and economically productive life
- (D) Health is a state of complete social well-being

Which of the above statements encompass the ideas referred to in the WHO definition of health?

- (1) Only (A), (C) and (D)
- (2) Only (A), (B) and (D)
- (3) Only (A), (B) and (C)
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 104 Question Id : 749572714 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Please read the statements given below :

- (A) After a road traffic accident, a person loses a foot. Loss of foot is his impairment
- (B) The fact that he became unemployed because of this is referred to his disability
- (C) His unemployment is referred to his handicap.

Choose the correct answer from the options given below :

- (1) Statements (B) and (C) are correct
- (2) Statements (A) and (B) are correct
- (3) Statements (A) and (C) are correct
- (4) Statement (B) is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 105 Question Id : 749572715 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The attack rate in susceptible people who have been exposed to a primary case is called :

- (A) Attack rate
- (B) Post-primary attack rate
- (C) Secondary attack rate
- (D) Person-to-person attack rate

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 106 Question Id : 749572716 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : Measles vaccine is a live, attenuated vaccine.

Statement II : Measles is caused by a RNA paramyxovirus.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 107 Question Id : 749572717 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

In children < 5 years of age, which of the following is relatively age-independent?

- (A) Weight for age
- (B) Length for age
- (C) Height for age
- (D) Mid-upper arm circumference

Choose the correct answer from the options given below :

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

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 108 Question Id : 749572718 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

In India the Universal Immunization (National Immunization Schedule) Program does not include which of the following vaccine for all children ?

- | | |
|-------------------|---------------|
| (1) Measles | (2) BCG |
| (3) Hepatitis – B | (4) Varicella |

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 109 Question Id : 749572719 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : The aim of National Strategic Plan for TB elimination is to achieve elimination of TB by 2025.

Statement II : Targets during plan period of 2017–2025 include 80% reduction in TB incidence.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 110 Question Id : 749572720 Question Type : MCQ Option Shuffling : No
Correct Marks : 1 Wrong Marks : 0.25

Multidrug resistant Tuberculosis implies resistance to which of the following drugs?

- (A) Rifampicin only
- (B) Isoniazid only
- (C) Both Rifampicin and Isoniazid
- (D) Ethambutol and Pyrazinamide

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 111 Question Id : 749572721 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The National vector borne disease Control (NVBDCP) Programme is responsible for prevention and control of the following diseases

- (A) Malaria
- (B) Filaria
- (C) Japanese Encephalitis
- (D) Dengue

Choose the correct answer from the options given below :

- (1) Only (A) and (B) are correct
- (2) Only (B) and (D) are correct
- (3) Only (A), (B) and (C) are correct
- (4) (A), (B), (C) and (D) are correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 112 Question Id : 749572722 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Statements are given below :

- (A) Stunting is an indicator of linear growth retardation
- (B) Stunting is an indicator of inadequate nutrition over long period or recurrent periods.
- (C) Stunting is an indicator of acute malnutrition
- (D) Stunting is measured by length/height for age

Choose the correct answer from the options given below :

- (1) Statements (A), (C), (D) are correct; Statement (B) is incorrect
- (2) Statements (A) and (B) are correct ; Statements (C), and (D) are incorrect
- (3) Statements (A), (B) and (C) are correct ; Statement (D) is incorrect
- (4) Statements (A), (B) and (D) are correct ; Statement (C) is incorrect

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 113 Question Id : 749572723 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Beriberi is caused by the deficiency of which of the following Vitamin?

- | | |
|----------------------------|-----------------------------|
| (1) Vitamin B ₁ | (2) Vitamin B ₁₂ |
| (3) Vitamin C | (4) Vitamin D |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 114 Question Id : 749572724 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

We want to compare people who have developed dengue with healthy people who are not infected with dengue virus to see the difference in their outdoor activity, behavioural pattern etc. What is the best study design?

- (A) Case-Control
- (B) Cohort
- (C) Cross-sectional
- (D) Case Series

Choose the correct answer from the options given below :

- (1) (A) is correct
- (2) Only (A) and (B) are correct
- (3) (A), (B) and (C) are correct
- (4) Only (A) and (C) are correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 115 Question Id : 749572725 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The proportion of cases of a specified disease or condition which are fatal within a specified time is called

- (A) Morbidity rate
- (B) Case fatality rate
- (C) Proportionate mortality
- (D) Death rate

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 116 Question Id : 749572726 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following is the cultural barrier of communication?

- (1) Difficulties in hearing and expression
- (2) Emotional disturbances and level of intelligence
- (3) Invisibility, noise and Congestion
- (4) Customs, beliefs and illiteracy

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 117 Question Id : 749572727 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : The primary function of health communication is to provide scientific knowledge or information to people about health problems and how to maintain and promote health.

Statement II : Exposure to the right kind of health information can eliminate social and psychological barriers of ignorance, prejudice and misconceptions people may have about health matters.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 118 Question Id : 749572728 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The term _____ is used to describe the relation between disease and social conditions.

- | | |
|-----------------------|----------------------|
| (1) Social Survey | (2) Social Pathology |
| (3) Social Psychology | (4) Social Defence |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 119 Question Id : 749572729 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following is not a random sampling?

- | | |
|--------------------------------|----------------------------|
| (1) Systematic random sampling | (2) Quota sampling |
| (3) Multistage sampling | (4) Simple random sampling |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 120 Question Id : 749572730 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Interpersonal relationship characterised by a spirit of cooperation, confidence and harmony is known as _____.

- | | |
|------------------|----------------|
| (1) Relationship | (2) Empathy |
| (3) Rapport | (4) Friendship |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 121 Question Id : 749572731 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

The document signed by subjects prior to an experiment in which the study conditions and risks of participation are clearly explained is called _____.

- | | |
|---------------------------|-------------------------|
| (1) Informed Consent Form | (2) Questionnaire |
| (3) Patient Record | (4) Informed Compliance |

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 122 Question Id : 749572732 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements : One is labelled as Assertion (A) and the other is labelled as Reasoning (R) :

Assertion (A) : Reinforcing desired behavior is far more successful than punishing undesired behavior.

Reasoning (R) : Reinforcement assists learning, as the behavior to be learned is strengthened by the positive consequences that follow it.

In the light of above statements, choose the correct answer from the options given below :

- (1) Both (A) and (R) are true but (R) is the correct explanation of (A)
- (2) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- (3) (A) is true but (R) is false
- (4) (A) is false but (R) is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 123 Question Id : 749572733 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements : One is labelled as Assertion (A) and the other is labelled as Reasoning (R) :

Assertion (A) : Health system strengthening is a core focus of the Sustainable Development Goals (SDGs)

Reasoning (R) : The Universal Health Coverage (UHC) is the key to achievement of overall health goals and development of strong resilient health system.

In the light of above statements, choose the correct answer from the options given below :

- (1) Both (A) and (R) are correct but (R) is the correct explanation of (A)
- (2) Both (A) and (R) are correct but (R) is not the correct explanation of (A)
- (3) (A) is correct but (R) is not correct
- (4) (A) is not correct but (R) is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 124 Question Id : 749572734 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : Behaviour Change Communication (BCC) is a systematic process that motivates individuals, families and communities to change their inappropriate or unhealthy behavior, or to continue a healthy behaviour

Statement II : Behaviour Change Communication is a key supportive strategy for prevention of diseases and promotion of healthcare services.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3

4. 4

Question Number : 125 Question Id : 749572735 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : Thinking (Cognition) mediates emotions and behaviours.

Statement II : Faulty cognitions lead to psychological distress and dysfunction.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 126 Question Id : 749572736 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following committee recommended the appointment of medical social workers in India?

- (1) Mudaliar Committee – 1962
- (2) Chadha Committee – 1963
- (3) Mukerji Committee – 1965
- (4) Bhore Committee – 1946

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 127 Question Id : 749572737 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II.

List I	List II
(A) Eclectic approach	(I) Adapts and uses elements from various discipline flexibly
(B) Integrated approach	(II) Engages with disciplines to see their overlaps and create new insights
(C) Interdisciplinary approach	(III) Combines methods and theories from multiple disciplines into one framework
(D) Multidisciplinary approach	(IV) Applies principles from different disciplines separately

Choose the correct options given below :

- (1) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (4) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 128 Question Id : 749572738 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II.

List I	List II
(A) Id	(I) Unconscious part of the mind driven by pleasure principle
(B) Ego	(II) Moral conscience, Internal Societal standards
(C) Super Ego	(III) Driven by the reality principle
(D) Defense Mechanisms	(IV) Psychological strategies to cope with anxiety

Choose the correct options given below :

- (1) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (2) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (3) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 129 Question Id : 749572739 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements :

Statement I : Theories in quantitative studies provide an explanation on the subjective experiences of the respondent.

Statement II : In a qualitative grounded theory, theories are derived deductively from data collection and analysis.

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 130 Question Id : 749572740 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Identify the correct sequence of the deductive approach used in quantitative research.

- (A) Researcher tests hypotheses or research questions from the theory
- (B) Researcher conducts a thorough review of literature
- (C) Researcher defines and operationalises variables derived from the theory
- (D) Researcher measures variables using instruments to test hypotheses
- (E) Researcher tests or verifies a theory

Choose the correct answer from the options given below :

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

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 131 Question Id : 749572741 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Identify the correct sequence of the inductive logic of research in a qualitative study.

- (A) Researcher analyses data to form themes or categories
- (B) Researcher gathers information
- (C) Researcher poses generalisations or theories from past experiences and literature
- (D) Researcher asks open ended questions and record field notes
- (E) Researcher looks for broad pattern, generalisations or theories from theme or categories

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 132 Question Id : 749572742 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following is/are not a component of a purpose statement in a quantitative research?

- (A) It includes words to signal the major intent of the study
- (B) It does not mention the specific approach to the study
- (C) It does not identify a conceptual framework to explain the relationship of variables
- (D) It position the independent variables first, followed by the dependent variables
- (E) It does not mention the study participants or study site

Choose the correct answer from the options given below :

- (1) (B) only
- (2) (B) and (E) only
- (3) (E) and (D) only
- (4) (B), (C) and (E) only

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 133 Question Id : 749572743 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Identify the correct sequence of the procedures for conducting a phenomenological research from the following.

- (A) Distinguish and specify the philosophical assumptions of phenomenology
- (B) Collect data on a phenomenon
- (C) Identify a phenomenon
- (D) Report and present the essence of a phenomenon
- (E) Generate themes and structural descriptions

Choose the correct answer from the options given below :

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

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 134 Question Id : 749572744 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are two statements regarding assumptions in cognitive behavioural approaches in social work:

Statement I : Emotions and behaviour are determined by thinking.

Statement II : Emotional disorders result from negative and unrealistic thinking and this can be reduced by altering thoughts.

In the light of the above statements, choose the correct answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 135 Question Id : 749572745 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II

List I	List II
(A) Classical conditioning	(I) Albert Bandura
(B) Operant conditioning	(II) Noam Chomsky
(C) Observational Learning	(III) Ivan Pavlov and John Watson
(D) Cognitive Paradigm	(IV) E.L. Thorndike and B.F. Skinner

Choose the correct answer from the options given below:

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 136 Question Id : 749572746 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : When the parents ignore the child when he or she managed to complete tasks by him/herself alone, in effect the parents are giving no reward for self-directed act of the child.

Statement II : In such circumstances the child learns that they are ignored when doing good and naughty behaviours get noticed.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 137 Question Id : 749572747 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : Behaviourists are not interested in what happens between the stimulus and the behavioural response.

Statement II : Cognitive Psychologists recognize that thought mediate what happens between a stimulus and the behaviour that follows.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 138 Question Id : 749572748 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : Albert Ellis developed the Rational Emotive Therapy.

Statement II : In Rational Emotive Therapy, the task of the therapist is to help the individual change their negative and irrational beliefs to positive and realistic.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 139 Question Id : 749572749 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Which of the following statements is / are incorrect?

- (A) Noam Chomsky supported the behaviorist idea that humans learn language through reinforcement
- (B) Chomsky argued that human language understanding is shaped by an innate Language Acquisition Device (LAD)
- (C) The LAD does not restrict the number of possible grammatical constructions
- (D) The acquisition of language is constrained by the structure of the mind.
- (E) Chomsky emphasized both the biological foundations and the collective potential of language

Choose the correct answer from the options given below :

- (1) (D) only
- (2) (D) and (A) only
- (3) (A) and (C) only
- (4) (C) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 140 Question Id : 749572750 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements on cognitivism.

Statement I : Cognitivism is a synthesis of behaviorism and Gestaltism.

Statement II : Cognitivism emphasized internal mental processes like behaviorism and use precise quantitative analysis to study how people learn and think like Gestaltism.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 141 Question Id : 749572751 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : Infants are not capable of interpreting and responding to emotional information when it is expressed by a stranger.

Statement II : Infants are able to gather emotional information only from facial expression.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 142 Question Id : 749572752 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : The right hemisphere of the human brain represents knowledge in a manner that is analogous to our physical environment.

Statement II : The left hemisphere of the human brain has the ability to manipulate imaginary components and symbols and to generate entirely new information.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 143 Question Id : 749572753 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : The localisation of function refers to the specific areas of the brain that control specific skills or behaviour.

Statement II : The technique of magnetoencephalography allows localisation of brain signals.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

1. 1
2. 2
3. 3
4. 4

Question Number : 144 Question Id : 749572754 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements regarding structure of the brain.

Statement I : The Broca's area located in the temporal lobe supports grammatical processing and language production.

Statement II : The Wernicke's area, located in the temporal lobe is involved in comprehending word meaning.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 145 Question Id : 749572755 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements :

Statement I : The functionalist approach to emotion emphasizes the broad function of emotion is to energize behaviour aimed at attaining personal goals.

Statement II : Functionalist theorists is of the opinion that emotions are central to all human endeavors such as cognitive processing, Social behaviour and Physical health.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
- (4) Statement I is false but Statement II is true

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 146 Question Id : 749572756 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II

List I (Age)		List II (Emotional Expressiveness)	
(A)	Birth to 6 months	(I)	Confirmity to and conscious awareness of emotional display rules improve
(B)	1-2 years	(II)	Self-conscious emotions are clearly linked to self-evaluation
(C)	3-6 years	(III)	Expression of happiness increase when interacting with familiar people
(D)	7-11 years	(IV)	Self-conscious emotions emerge

Choose the correct answer from the options given below:

- (1) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (2) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 147 Question Id : 749572757 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Given below are statements regarding the Nativist Perspective on language development. Which of these is / are incorrect?

- (A) The Nativist Perspective was proposed by Noam Chomsky
- (B) The Nativist Perspective regards language as a unique human accomplishment
- (C) Chomsky proposed that all children have a Language Acquisition Device (LAD)
- (D) The LAD enables the child to acquire proficiency over language
- (E) LAD is a specific grammar which indicates specific rules for each human language

Choose the correct answer from the options given below :

- (1) (B) only
- (2) (B) and (E) only
- (3) (E) only
- (4) (D) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 148 Question Id : 749572758 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Match List I with List II

List I (Part of Brain)	List II (Function)
(A) Cerebellum	(I) Vital role in memory and space
(B) Hippocampus	(II) Language production
(C) Broca's area	(III) Hormone Secretion
(D) Hypothalamus	(IV) Balance and control

Choose the correct answer from the options given below:

- (1) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (2) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (3) (A)-(IV), (B)-(I), (C)-(III), (D)-(II)
- (4) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 149 Question Id : 749572759 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Give below are two statements regarding privacy and confidentiality in research.

Statement I : To maintain the privacy of the potential participant and to keep their records confidential is of paramount importance in research.

Statement II : The details of a study participant should not be disclosed to anyone under any circumstances.

In the light of the above statements, choose the most appropriate answer from the options given below :

- (1) Both Statement I and Statement II are correct
- (2) Both Statement I and Statement II are incorrect
- (3) Statement I is correct but Statement II is incorrect
- (4) Statement I is incorrect but Statement II is correct

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 150 Question Id : 749572760 Question Type : MCQ Option Shuffling : No Correct Marks : 1 Wrong Marks : 0.25

Below are statements on identifying, mitigating and managing Conflict of Interest (COI) in research. Which of these is / are incorrect?

- (A) The Research Institution must develop policies and SOPs to address COI issues
- (B) The Research Institute must implement policies and procedures to address COI
- (C) The Research Institute should monitor the research or check research result for accuracy and objectives
- (D) The Research Institute should regulate the functioning and decision making of the Ethics Committee
- (E) It is the sole responsibility of the Research Institute to identify and mitigate COI in research

Choose the correct answer from the options given below :

- (1) (C) only
- (2) (E) only
- (3) (D) and (E) only
- (4) (C), (D) and (E) only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4