# Section : Reasoning

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

# Question No. : 1

An application was received by inward clerk in the afternoon of a week day. Next day he forwarded it to the table of the senior clerk who was on leave that day. The senior clerk put up the application to the desk officer next day in the evening. The desk officer studied the application and disposed off the matter on the same day i.e., Friday. Which day was the application received by the inward clerk?

A) Monday B) Wednesday C) Tuesday D) Previous week's Saturday

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

# **Question No. : 2**

In a queue of children, Kashish is fifth from the left and Mona is sixth from the right. When they interchange their places among themselves, Kashish becomes thirteenth from the left. Then, what will be Mona's position from the right ?

A) 4<sup>th</sup> B) 14<sup>th</sup> C) 8<sup>th</sup> D) 15<sup>th</sup>

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# **Question No. : 3**

If the numbers from 1 to 45 which are exactly divisible by 3 are arranged in ascending order, minimum number being on the top, which would come at the ninth place from the top ?

A) 18 B) 24 C) 21 D) 27

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# **Question No. : 4**

Which letter should be the ninth letter to the left of the ninth letter from the right, if the first half of the alphabets of English are reversed ?

A) D B) F C) E D) I

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No. : 5

In a family, a couple has a son and a daughter. The age of the father is three times that of his daughter and the age of the son is half of his mother. The wife is 9 years younger to her husband and the brother is seven years older than his sister. What is the age of the mother ?

A) 40 years B) 50 years C) 45 years D) 60 years

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 6

A number of friends decided to go on a picnic and planned to spend Rs. 96 on eatables. Four of them, did not turn up. As a consequence, the remaining ones had to contribute Rs. 4 each extra. The number of those who attended the picnic was

A) 8 B) 16 C) 12 D) 24

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 7

Out of a total of 120 musicians in a club, 5% can play all the three instruments — guitar, violin and flute. It so happens that the number of musicians who can play any two and only two of the above instruments is 30. The number of musicians who can play the guitar alone is 40. What is the total number of those who can play violin alone or flute alone ?

A) 30 B) 44 C) 38 D) 45

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 8

There are 50 students admitted to a nursery class, who all can speak at least one of English or Hindi. Some students can speak only English and some can speak only Hindi. Ten students can speak both English and Hindi. If the number of students who can speak English is 21, then how many students can speak Hindi, how many can speak only Hindi and how many can speak only English ?

A) 39, 29 and 11 respectively B) 28, 18 and 22 respectively C) 37, 27 and 13 respectively D) 21, 11 and 29 respectively

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

# Question No. : 9

The letters of the name of a vegetable are I, K, M, N, P, P, U. If the letters are rearranged correctly, what is the last letter of the word formed ?

A) M B) N C) K D) P

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 10

At a farm, there are hens, cows and bullocks, and keepers to look after them. There are 69 heads less than legs; the number of cows is double than that of the bullocks; the number of cows and hens is the same and there is one keeper per ten birds and cattle. The total number of hens plus cows and bullocks and their keepers does not exceed 50. How many cows are there ?

A) 10 B) 14 C) 12 D) 16

**DIRECTIONS for the question:** In the question below, a statement is followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. Mark your answer as

# Question No. : 11

Statement : Like a mad man, I decided to follow him. Assumptions : I. I am not a mad man. II. I am a mad man. A) if only assumption I is implicit; B) if either I or II is implicit; C) if only assumption II is implicit; D) if neither I nor II is implicit

**DIRECTIONS for the question:** In the question below, a statement is followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. Mark your answer as

# Question No. : 12

Statement :If it is easy to become an engineer, I don't want to be an engineer.Assumptions :I. An individual aspires to be professional.II. One always desires to achieve something which is hard earned.

A) if only assumption I is implicit; B) if either I or II is implicit; C) if only assumption II is implicit; D) if neither I nor II is implicit

**DIRECTIONS for the question:** In the question below, a statement is followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. Mark your answer as

# Question No.: 13

Statement :All the employees are notified that the organisation will provide transport facilities at half the cost from the<br/>nearby railway station to the office except to those who have been provided with travelling allowance.Assumptions :I. Most of the employees will travel by the office transport.<br/>II. Those who are provided with travelling allowance will not read such a notice.

A) if only assumption I is implicit; B) if either I or II is implicit; C) if only assumption II is implicit; D) if neither I nor II is implicit

**DIRECTIONS for the question:** In the question below, a statement is followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. Mark your answer as

## **Question No. : 14**

*Statement* : An advertisement of a Bank "Want to open a bank account! Just dial our 'room service' and we will come at your doorsteps."

*Assumptions* : I. There is a section of people who may find difficulty in coming to the bank office foe opening bank accounts. II. Nowadays banking has become very competitive.

A) if only assumption I is implicit; B) if either I or II is implicit; C) if only assumption II is implicit; D) if neither I nor II is implicit

**DIRECTIONS for the question:** In the question below, a statement is followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. Mark your answer as

# Question No. : 15

- **Statement :** I can take you quickly from Kanpur to Lucknow by my cab but then you must pay me double the normal charges.
- *Assumptions :* I. Normally, it will take more time to reach Lucknow from Kanpur. II. People want to reach quickly but they will not pay extra money for it.

A) if only assumption I is implicit; B) if either I or II is implicit; C) if only assumption II is implicit; D) if neither I nor II is implicit

DIRECTIONS for the question: What should come in place of question mark (?) in the following number/alphabetic series?

# Question No. : 16

QPO, SRQ, UTS, WVU, (?)

A) XVZ B) YXW C) ZYA D) VWX

DIRECTIONS for the question: What should come in place of question mark (?) in the following number/alphabetic series?

# Question No. : 17

19, 2, 38, 3, 114, 4, (?)

A) 228 B) 352 C) 256 D) 456

DIRECTIONS for the question: What should come in place of question mark (?) in the following number/alphabetic series?

## Question No. : 18

YEB, WFD, UHG, SKI, (?)

A) QOL B) TOL C) QGL D) QNL

DIRECTIONS for the question: What should come in place of question mark (?) in the following number/alphabetic series?

# Question No. : 19

AZ, CX, FU, (?)

A) IR B) JQ C) IV D) KP

DIRECTIONS for the question: What should come in place of question mark (?) in the following number/alphabetic series?

### Question No.: 20

2Z5, 7Y7, 14X9, 23W11, 34V13, (?)

A) 27U24 B) 45U15 C) 47U15 D) 47V14

DIRECTIONS for the question: Read the information given below and answer the question that follows.

# Question No. : 21

From a group of six boys M, N, O, P, Q, R and five girls G, H, I, J, K; a team of six is to be selected. Some of the criteria of selection are as follows : M and J go together. O cannot be placed with N. I cannot go with J. N goes with H. P and Q have to be together. K and R go together.

If the team consists of two girls and I is one of them, the other members are

A) GMRPQ B) KOPQR C) HNOPQ D) KRMNP

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

#### **Question No. : 22**

From a group of six boys M, N, O, P, Q, R and five girls G, H, I, J, K; a team of six is to be selected. Some of the criteria of selection are as follows : M and J go together. O cannot be placed with N. I cannot go with J. N goes with H. P and Q have to be together. K and R go together.

If the team has four boys including O and R, the members of the team other than O and R are

# A) HIPQ B) GJPQ C) GKPQ D) GJMP

DIRECTIONS for the question: Read the information given below and answer the question that follows.

# Question No. : 23

From a group of six boys M, N, O, P, Q, R and five girls G, H, I, J, K; a team of six is to be selected. Some of the criteria of selection are as follows : M and J go together. O cannot be placed with N. I cannot go with J. N goes with H. P and Q have to be together. K and R go together.

If four members are boys, which of the following cannot constitute the team

A) GJMOPQ B) JKMNOR C) HJMNPQ D) JKMPQR

DIRECTIONS for the question: Read the information given below and answer the question that follows.

# **Question No. : 24**

From a group of six boys M, N, O, P, Q, R and five girls G, H, I, J, K; a team of six is to be selected. Some of the criteria of selection are as follows : M and J go together. O cannot be placed with N. I cannot go with J. N goes with H. P and Q have to be together. K and R go together.

If both K and P are members of the team and three boys in all are included in the team, the members of the team other than K and P are

A) GIRQ B) HIRQ C) GJRM D) URQ

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

# Question No. : 25

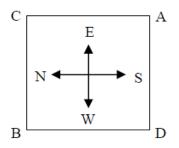
From a group of six boys M, N, O, P, Q, R and five girls G, H, I, J, K; a team of six is to be selected. Some of the criteria of selection are as follows : M and J go together. O cannot be placed with N. I cannot go with J. N goes with H. P and Q have to be together. K and R go together.

If the team has three girls including J and K, the members of the team other than J and K are

A) GHNR B) MORG C) MNOG D) NHOR

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

Question No. : 26

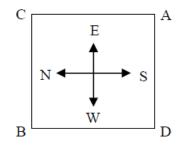


Ankush starts crossing the plot diagonally from A. After walking half the distance, he turns right, walks some distance and turns left. Which direction is Ankush facing now ?

A) North-east B) North C) North-west D) South-east

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 27

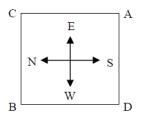


From the original position given in the above figure, points A and B move one arm length clockwise and then cross over to the corner diagonally opposite; C and D move one arm length anti-clockwise and cross over the corner diagonally opposite. The original configuration ADBC has now changed to

A) CBDA B) DACB C) BDAC D) ACBD

DIRECTIONS for the question: Solve the following question and mark the best possible option.

**Question No. : 28** 



From the original position, B and D move one and a half length of sides clockwise and anticlockwise respectively. Which one of the following statements is true ?

A) B and D are both at the midpoint between A and C

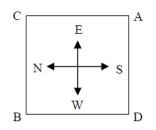
B) B is at the midpoint between A and C, and D is at the corner originally occupied by A

C) D is at the midpoint between A and C, and B is at the corner originally occupied by C

D) B and D are both at the midpoint between A and D

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No. : 29

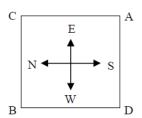


From the positions in the original figure, C and A move diagonally to opposite corners and then one side each clockwise and anticlockwise respectively. B and D move two sides each clockwise and anti-clockwise respectively. Where is A now ?

A) At the north-west corner B) At the south-east corner C) At the north-east corner D) At the south-west corner

# DIRECTIONS for the question: Solve the following question and mark the best possible option.

## Question No. : 30



From the positions in the original figure, C and A move diagonally to opposite corners and then one side each clockwise and anticlockwise respectively. B and D move two sides each clockwise and anti-clockwise respectively. who is at the north-west corner ?

# A) A B) C C) B D) D

**DIRECTIONS for the question:** In the question a statement is given followed by three courses of action numbered I, II and III. Assume everything in the statement to be true. Decide which of the three given suggested courses of action logically follows for pursuing.

#### Question No. : 31

Statement :	, <u>,</u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	collided with a running train.				
Courses of action :	I. The train driver should immediately be suspended.				
	II. The driver of the bus should be tried in court for negligence on his part.				
	III. The railways authorities should be asked to man all its level crossings.				

A) None follows B) Only III follows C) Only I and II follow D) Only II and III follow

**DIRECTIONS for the question:** In the question a statement is given followed by three courses of action numbered I, II and III. Assume everything in the statement to be true. Decide which of the three given suggested courses of action logically follows for pursuing.

#### Question No. : 32

**Statement :** There was a spurt in criminal activities in the city during the recent festival season.

*Courses of action :* I. The police should immediately investigate into the causes of this increase.

II. In future the police should take adequate precautions to avoid recurrence of such a situation during festivals. III. The known criminals should be arrested before any such season.

A) None follows B) Only II and III follow C) Only I and II follow D) All follow

**DIRECTIONS for the question:** In the question a statement is given followed by three courses of action numbered I, II and III. Assume everything in the statement to be true. Decide which of the three given suggested courses of action logically follows for pursuing.

# Question No. : 33

**Statement :** A mass mortality of shrimps in ponds on entire Andhra coast has recently been reported sick due to the presence of a virus.

Courses of action: I. The water of the ponds affected should immediately be treated for identifying the nature of the virus.

II. The catching of shrimps from the ponds should temporarily be stopped. III. The fishermen should be asked to watch for the onset of such phenomenon in nature.

A) Only I follows B) All follow C) Only I and II follow D) Only II and III follow

**DIRECTIONS for the question:** In the question a statement is given followed by three courses of action numbered I, II and III. Assume everything in the statement to be true. Decide which of the three given suggested courses of action logically follows for pursuing.

# Question No. : 34

Statement :	The weather bureau has, through a recent bulletin, forecast heavy rainfall during the next week which may cause water logging in several parts of the city.			
Courses of action :	<ul> <li>I. The bulletin should be given wide publicity through the mass media.</li> <li>II. The civic authority should keep in readiness the pumping system for removal of water from III. The people should be advised to stay indoors during the period.</li> </ul>			

A) All follow B) Only II follows C) Only I and II follow D) Only II and III follow

**DIRECTIONS for the question:** In the question a statement is given followed by three courses of action numbered I, II and III. Assume everything in the statement to be true. Decide which of the three given suggested courses of action logically follows for pursuing.

Statement :	The world will have to feed more than 10 billion people in the next century, of whom half will be in Asia and will eat rice as their staple food.
Courses of action :	I. More funds should immediately be allocated for rice research to help ensure adequate supplies.
	II. The people in Asia should be encouraged to change their food habits.
	III. The rice should be grown in countries outside Asia to meet the demand.

A) Only I and II follow B) All follow C) Only II and III follow D) Only I and III follow

**DIRECTIONS for the question:** In the question a passage is given, followed by several inferences. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

# Question No. : 36

The space exploration has been done mainly by using unmanned satellites called space probes containing a large variety of latest scientific instruments on board. These space probes have provided us the close-up pictures and other data about planets and other bodies in the outer space. The climax of the intensive American space programme came when Neil Armstrong became the first man to set foot on the moon on July 20, 1969. Originally, the artificial satellites were launched for studying the upper atmosphere of the earth.

The space probes have increased our knowledge about space and the bodies in it

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A) if the inference is 'definitely true'; B) if the 'data provided is inadequate'; C) if the inference is 'probably true'; D) if the inference is 'definitely false'
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**DIRECTIONS for the question:** In the question a passage is given, followed by several inferences. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

# Question No. : 37

The space exploration has been done mainly by using unmanned satellites called space probes containing a large variety of latest scientific instruments on board. These space probes have provided us the close-up pictures and other data about planets and other bodies in the outer space. The climax of the intensive American space programme came when Neil Armstrong became the first man to set foot on the moon on July 20, 1969. Originally, the artificial satellites were launched for studying the upper atmosphere of the earth.

Space probes are meant to study the upper atmosphere of the earth only

A) if the inference is 'definitely true'; B) if the 'data provided is inadequate'; C) if the inference is 'probably true'; D) if the inference is 'definitely false'

**DIRECTIONS for the question:** In the question a passage is given, followed by several inferences. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

# Question No. : 38

The space exploration has been done mainly by using unmanned satellites called space probes containing a large variety of latest scientific instruments on board. These space probes have provided us the close-up pictures and other data about planets and other bodies in the outer space. The climax of the intensive American space programme came when Neil Armstrong became the first man to set foot on the moon on July 20, 1969. Originally, the artificial satellites were launched for studying the upper atmosphere of the earth.

Neil Armstrong was the first man to go into space

A) if the inference is 'definitely true'; B) if the 'data provided is inadequate'; C) if the inference is 'probably true'; D) if the inference is 'definitely false'

**DIRECTIONS for the question:** In the question a passage is given, followed by several inferences. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

# Question No. : 39

The space exploration has been done mainly by using unmanned satellites called space probes containing a large variety of latest scientific instruments on board. These space probes have provided us the close-up pictures and other data about planets and other bodies in the outer space. The climax of the intensive American space programme came when Neil Armstrong became the first man to set foot on the moon on July 20, 1969. Originally, the artificial satellites were launched for studying the upper atmosphere of the earth.

Space probes are provided with computers

A) if the inference is 'definitely true'; B) if the 'data provided is inadequate'; C) if the inference is 'probably true'; D) if the inference is 'definitely false'

**DIRECTIONS for the question:** In the question a passage is given, followed by several inferences. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

# Question No. : 40

The space exploration has been done mainly by using unmanned satellites called space probes containing a large variety of latest scientific instruments on board. These space probes have provided us the close-up pictures and other data about planets and other bodies in the outer space. The climax of the intensive American space programme came when Neil Armstrong became the first man to set foot on the moon on July 20, 1969. Originally, the artificial satellites were launched for studying the upper atmosphere of the earth.

Moon has been explored by man

A) if the inference is 'definitely true';B) if the 'data provided is inadequate';C) if the inference is 'probably true';D) if the inference is 'definitely false'

# Section : Verbal

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

# Question No. : 41

The National Institute of Oceanography (NIO) in Goa has developed a real-time reporting and Internet-accessible coastal sea-level monitoring system and it has been operational at Verem jetty in the Mandovi estuary in Goa since September 24, 2005. The gauge uses a cellular modem to put on the Internet real-time sea-level data, which can be accessed by authorized personnel. By using a cellular phone network, coastal sea-level changes are continuously updated on to a web-server. The sea-level gauge web site can be made available to television channels to broadcast real-time visualization of the coastal sea level, particularly during oceanogenic hazards such as storm surges or a tsunami. A network of such gauges along the coast and the islands that lie on either side of the mainland would provide data to disaster management agencies to disseminate warnings to coastal communities and beach tourism centres.

The gauge incorporates a bottom pressure transducer as the sensing element. The sea unit of the gauge, which houses the pressure transducer, is mounted within a cylindrical protective housing, which in turn is rigidly held within a mechanical structure. This structure is secured to a jetty. The gauge is powered by a battery, which is charged by solar panels. Battery, electronics, solar panels, and cellular modems are mounted on the top portion of this structure. The pressure sensor and the logger are continuously powered on, and their electrical current consumption is 30 mA and 15 mA respectively. The cellular modem consumes 15 mA and 250 mA during standby and data transmission modes, respectively. The pressure sensor located below the low-tide level measures the hydrostatic pressure of the overlying water layer. An indigenously designed and developed microprocessor based data logger interrogates the pressure transducer and acquires the pressure data at the rate of two samples a second. The acquired pressure data is averaged over an interval of five minutes to remove high-frequency wind-waves that are superimposed on the lower frequency tidal cycle. The averaged data is recorded in a multimedia card. The measured water pressure is converted to water level using sea water density and acceleration owing to the earth's gravity. The water level so estimated is then referenced to chart datum (CD), which is the internationally accepted reference level below which the sea level will not fall. The data received at the Internet server is presented in graphical format together with the predicted sea level and the residual. The residual sea level (that is, the measured minus the predicted sea level) provides a clear indication of sea-level oscillation and a quantitative estimate of the anomalous behaviour, the driving force for which could be atmospheric forcing (storm) or geophysical (tsunami).

A network of sea-level gauges along the Indian coastline and islands would also provide useful information to mariners for safe navigation in shallow coastal waters and contribute to various engineering projects associated with coastal zone management, besides dredging operations, port operations and management of inland water resources (reservoirs, dams). The system can also be used effectively for sharing of water resources between States and neighbouring countries, and for monitoring and implementation of river water treaties with greater transparency. Among the various communication technologies used for realtime transmission of sea-level data are the wired telephone connections, VHF/UHF transceivers, satellite transmit terminals and cellular connectivity. Wired telephone connections are severely susceptible to loss of connectivity during natural disasters such as storm surges, primarily because of telephone line breakage. Communication via VHF/UHF transceivers is limited by line-of-sight distance between transceivers and normally offer only point-to-point data transfer. Satellite communication via platform transmit terminals (PTTs) has wide coverage and, therefore, allows data reception from offshore platforms. However, data transfer speeds are limited. Further, many satellites (for example, GOES, INSAT) permit data transfer only at predefined time-slots, thereby inhibiting continuous data access. Technologies of data reporting via satellites have undergone a sea change recently in terms of frequency of reportage, data size, recurring costs and so forth. Broadband technology has been identified as one that can be used optimally for real-time reporting of data because of its inherent advantages such as a continuous two-way connection that allows high-speed data transfer and near real-time data reporting. While satellite communication is expensive, wireless communication infrastructure and the ubiguity of cellular phones have made cellular communication affordable. Low initial and recurring costs are an important advantage of cellular communication. A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data.

According to the passage which one of the following statements is *not* true ?

A) Network of gauges along the coast and the islands would help disaster management agencies to disseminate warnings

- B) Cellular based GPRS technology is not a simple and cost effective method for real-time reporting of data
- C) Disadvantage of wired telephone connections is the loss of connectivity during disasters due to line breakages
- D) Data reporting via satellites has undergone changes in terms of frequency, data size, recurring cost etc

# **DIRECTIONS for the question:** Read the passage and answer the question based on it.

# Question No. : 42

The National Institute of Oceanography (NIO) in Goa has developed a real-time reporting and Internet-accessible coastal sea-level monitoring system and it has been operational at Verem jetty in the Mandovi estuary in Goa since September 24, 2005. The gauge uses a cellular modem to put on the Internet real-time sea-level data, which can be accessed by authorized personnel. By using a cellular phone network, coastal sea-level changes are continuously updated on to a web-server. The sea-level gauge web site can be made available to television channels to broadcast real-time visualization of the coastal sea level, particularly during oceanogenic hazards such as storm surges or a tsunami. A network of such gauges along the coast and the islands that lie on either side of the mainland would provide data to disaster management agencies to disseminate warnings to coastal communities and beach tourism centres.

The gauge incorporates a bottom pressure transducer as the sensing element. The sea unit of the gauge, which houses the pressure transducer, is mounted within a cylindrical protective housing, which in turn is rigidly held within a mechanical structure. This structure is secured to a jetty. The gauge is powered by a battery, which is charged by solar panels. Battery, electronics, solar panels, and cellular modems are mounted on the top portion of this structure. The pressure sensor and the logger are continuously powered on, and their electrical current consumption is 30 mA and 15 mA respectively. The cellular modem consumes 15 mA and 250 mA during standby and data transmission modes, respectively. The pressure sensor located below the low-tide level measures the hydrostatic pressure of the overlying water layer. An indigenously designed and developed microprocessor based data logger interrogates the pressure transducer and acquires the pressure data at the rate of two samples

a second. The acquired pressure data is averaged over an interval of five minutes to remove high-frequency wind-waves that are superimposed on the lower frequency tidal cycle. The averaged data is recorded in a multimedia card. The measured water pressure is converted to water level using sea water density and acceleration owing to the earth's gravity. The water level so estimated is then referenced to chart datum (CD), which is the internationally accepted reference level below which the sea level will not fall. The data received at the Internet server is presented in graphical format together with the predicted sea level and the residual. The residual sea level (that is, the measured minus the predicted sea level) provides a clear indication of sea-level oscillation and a quantitative estimate of the anomalous behaviour, the driving force for which could be atmospheric forcing (storm) or geophysical (tsunami).

A network of sea-level gauges along the Indian coastline and islands would also provide useful information to mariners for safe navigation in shallow coastal waters and contribute to various engineering projects associated with coastal zone management, besides dredging operations, port operations and management of inland water resources (reservoirs, dams). The system can also be used effectively for sharing of water resources between States and neighbouring countries, and for monitoring and implementation of river water treaties with greater transparency. Among the various communication technologies used for realtime transmission of sea-level data are the wired telephone connections, VHF/UHF transceivers, satellite transmit terminals and cellular connectivity. Wired telephone connections are severely susceptible to loss of connectivity during natural disasters such as storm surges, primarily because of telephone line breakage. Communication via VHF/UHF transceivers is limited by line-of-sight distance between transceivers and normally offer only point-to-point data transfer. Satellite communication via platform transmit terminals (PTTs) has wide coverage and, therefore, allows data reception from offshore platforms. However, data transfer speeds are limited. Further, many satellites (for example, GOES, INSAT) permit data transfer only at predefined time-slots, thereby inhibiting continuous data access. Technologies of data reporting via satellites have undergone a sea change recently in terms of frequency of reportage, data size, recurring costs and so forth. Broadband technology has been identified as one that can be used optimally for real-time reporting of data because of its inherent advantages such as a continuous two-way connection that allows high-speed data transfer and near real-time data reporting. While satellite communication is expensive, wireless communication infrastructure and the ubiquity of cellular phones have made cellular communication affordable. Low initial and recurring costs are an important advantage of cellular communication. A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data.

What is the outermost part of the sea unit of the gauge ?

A) Pressure transducer B) Mechanical structure C) Cylindrical protective housing D) Sensing element

DIRECTIONS for the question: Read the passage and answer the question based on it.

# **Question No. : 43**

The National Institute of Oceanography (NIO) in Goa has developed a real-time reporting and Internet-accessible coastal sea-level monitoring system and it has been operational at Verem jetty in the Mandovi estuary in Goa since September 24, 2005. The gauge uses a cellular modem to put on the Internet real-time sea-level data, which can be accessed by authorized personnel. By using a cellular phone network, coastal sea-level changes are continuously updated on to a web-server. The sea-level gauge web site can be made available to television channels to broadcast real-time visualization of the coastal sea level, particularly during oceanogenic hazards such as storm surges or a tsunami. A network of such gauges along the coast and the islands that lie on either side of the mainland would provide data to disaster management agencies to disseminate warnings to coastal communities and beach tourism centres.

The gauge incorporates a bottom pressure transducer as the sensing element. The sea unit of the gauge, which houses the pressure transducer, is mounted within a cylindrical protective housing, which in turn is rigidly held within a mechanical structure. This structure is secured to a jetty. The gauge is powered by a battery, which is charged by solar panels. Battery, electronics, solar panels, and cellular modems are mounted on the top portion of this structure. The pressure sensor and the logger are continuously powered on, and their electrical current consumption is 30 mA and 15 mA respectively. The cellular modem consumes 15 mA and 250 mA during standby and data transmission modes, respectively. The pressure sensor located below the low-tide level measures the hydrostatic pressure of the overlying water layer. An indigenously designed and developed microprocessor based data logger interrogates the pressure transducer and acquires the pressure data at the rate of two samples a second. The acquired pressure data is averaged over an interval of five minutes to remove high-frequency wind-waves that are superimposed on the lower frequency tidal cycle. The averaged data is recorded in a multimedia card. The measured water pressure is converted to water level using sea water density and acceleration owing to the earth's gravity. The water level so estimated is then referenced to chart datum (CD), which is the internationally accepted reference level below which the sea level will not fall. The data received at the Internet server is presented in graphical format together with the predicted sea level and the residual. The residual sea level (that is, the measured minus the predicted sea level) provides a clear indication of sea-level oscillation and a quantitative estimate of the anomalous behaviour, the driving force for which could be atmospheric forcing (storm) or geophysical (tsunami).

A network of sea-level gauges along the Indian coastline and islands would also provide useful information to mariners for safe navigation in shallow coastal waters and contribute to various engineering projects associated with coastal zone management, besides dredging operations, port operations and management of inland water resources (reservoirs, dams). The system can also be used effectively for sharing of water resources between States and neighbouring countries, and for monitoring and implementation of river water treaties with greater transparency. Among the various communication technologies used for realtime transmission of sea-level data are the wired telephone connections, VHF/UHF transceivers, satellite transmit terminals and cellular connectivity. Wired telephone connections are severely susceptible to loss of connectivity during natural disasters such as storm surges, primarily because of telephone line breakage. Communication via VHF/UHF transceivers is limited by line-of-sight distance between transceivers and normally offer only point-to-point data transfer. Satellite communication via platform transmit terminals (PTTs) has wide coverage and, therefore, allows data reception from offshore platforms. However, data transfer speeds are limited. Further, many satellites (for example, GOES, INSAT) permit data transfer only at predefined time-slots, thereby inhibiting continuous data access. Technologies of data reporting via satellites have undergone a sea change recently in terms of frequency of reportage, data size, recurring costs and so forth. Broadband technology has been identified as one that can be used optimally for real-time reporting of data because of its inherent advantages such as a continuous two-way connection that allows high-speed data transfer and near real-time data reporting. While satellite communication is expensive, wireless communication infrastructure and the ubiquity of cellular phones have made cellular communication affordable. Low initial and recurring costs are an important advantage of cellular communication. A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data.

What is the limitation of satellite communication via platform transmit terminals ?

A) Coverage B) Off shore platforms C) Data transfer speed D) None of these

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an important advantage of cellular communication. A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data.

Which one of the following relationships is correct as per the passage ?

- A) Predicted sea level is a product of measured sea level and residual sea level
- B) Predicted sea level is the difference between measured sea level and residual sea level
- C) Residual sea level is the sum of predicted sea level and measured sea level
- D) Predicted sea level is obtained by dividing measured sea level and residual sea level

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

# Question No. : 45

The World Trade Organisation (WTO) Ministerial Conference, which commenced in Hong Kong on December 13, 2005 adopted a declaration on December 18, 2005 after six days of acrimonious negotiations between developed and developing countries. Although initially there was a show of unity among developing countries especially on the issue of agriculture, which was reflected in the formation of the G-110, the final outcome of the Ministerial Declaration has been thoroughly anti-development. The Ministerial Declaration has not only failed to address substantially the concerns of developing countries but has actually paved the way for an eventual trade deal by the end of 2006, which is going to be severely detrimental to their interests. It is clear by now that the so-called "Development Round" launched in Doha in 2001 has been manipulated by developed countries, especially the United States and the members of the European Union, to push for further trade liberalization in developing countries while they continue to protect their economies through high subsidies and non-tariff barriers. Far from redressing the asymmetries of the global trading system, the Doha round seems to be heading for another catastrophe for the developing world. The E.U. stuck to its intransigent position on the deadline of 2013 for the elimination of export subsidies and developing countries gave up their demand for an earlier end date despite the initial collective efforts of the G-110. The gross inadequacy of this so-called "concession" can be understood from the fact that export subsidies comprise less than 2 per cent of the total farm subsidies in the developed world. There has been no concrete commitment on the reduction of domestic support other than export subsidies. The E.U. can continue to subsidize agriculture to the tune of 55 billion euros a year. The E.U. budget adopted recently ensures that nothing can be touched in the agriculture budget till at least 2013. The U.S. budget reconciliation process and the final vote in the Congress are set to extend domestic support to agriculture and counter-cyclical support to commodities up to around 2011. Even in the case of cotton, the agreement to eliminate subsidies by 2006 is restricted to export subsidies only and does not include other forms of domestic support. The U.S. refused to give duty-free access to exports from Least Developed Countries (LDCs) for 99.9 per cent of product lines and the final agreement was on 97 per cent of them, which would enable the U.S. and Japan to deny market access to LDCs in product lines such as rice and textiles. Much of the Aid for Trade for LDCs, which is being showcased by developed countries as a "development package", is disguised in conditional loan packages that are contingent upon further opening up of their markets.

India's prime interest in agriculture was to ensure the protection of its small and marginal farmers from the onslaught of artificially low-priced imports or threats thereof. The proposals for agricultural tariff cuts, which are already on the table, are quite ambitious and the G-20 has already committed itself to undertake cuts to the extent of two-thirds of the level applicable to developed countries. Moreover, India has 100 per cent tariff lines bound in agriculture with the difference in the applied level and the bound level not very marked in many lines. In this context, the systemic problem faced by India's small and marginal farmers practicing subsistence agriculture will only get aggravated as a result of the impending tariff cuts that have been agreed upon. The government claims that the right to designate a number of agricultural product lines as special products based upon the considerations of food and livelihood security and to establish a special safeguard mechanism based on import quantity and price triggers, which have been mentioned in the Ministerial Text, adequately addresses the concerns of Indian farmers. The claim is questionable since the nature as well as the extent of protection under the category of special products remains restricted and the special safeguard mechanism, admittedly, is a measure to deal with an emergency and is of "a temporary nature". Therefore, seen in the light of the insignificant reductions in domestic farm subsidies by developed countries, tariff reduction commitments by developing countries seem to be totally unjustifiable. Developing countries have also agreed on the Swiss formula for tariff cuts under Non-Agricultural Market Access (NAMA). Although the coefficients will be negotiated later, it is unlikely that developed countries will agree upon sufficiently large coefficients for the formula that would ensure adequate policy space for developing countries in future to facilitate development of different sectors of their industries. The Ministerial Text's ritual references to "less than full reciprocity" and "special and differential treatment" fails to conceal the fact that the flexibilities provided by the July framework regarding the nature of the tariff reduction formula, product coverage, the extent of binding and the depth of cuts have been done away with. Moreover, no concrete commitment has been obtained in the Ministerial Text for the removal of the Non-Tariff barriers by developed countries, which is their principal mode of protection, despite developing countries making such major concessions on industrial tariff cuts. The fact of the matter is that developing countries have committed themselves to cuts in both agricultural and industrial tariffs, without getting anything substantial in return from developed countries. And India has facilitated the adoption of this bad deal in the backdrop of an acute crisis faced by Indian agriculture. Unfortunately, developing countries have lost the opportunity to rework fundamentally the iniquitous Agreement on Agriculture and protect the domestic policy space vis-a-vis industrial protection by developing countries, which could have been achieved by galvanizing the unity of the G-110.

What was/were the flexibility/flexibilities envisaged by the July framework?

A) Depth of cuts B) Product coverage C) Tariff reduction formula D) All the above

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

# Question No. : 46

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Which one of the following statements is *not* correct as per the passage ?

- A) Aid which is given for the Least Developed Countries (LDCs) by the developed countries in the form of 'developed package' is conditioned upon further opening of their market
- B) Reduction in the domestic farm subsidies by the developed countries is insignificant and the commitment made by the developing countries for tariff reduction is unjustifiable

C) India's main interest in agriculture is to protect its small and marginal farmers from the onslaught of artificially low priced imports or threats of such nature

D) Developed countries have given commitment to the Ministerial Text on the removal of Non-Tariff barriers

DIRECTIONS for the question: Read the passage and answer the question based on it.

# Question No. : 47

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# Which claim of the Indian Government is questionable?

- A) Right to designate agriculture product lines as special products considering food and livelihood security
- B) India has facilitated the adoption of a beneficial deal for agriculture at WTO
- C) Formation of G-110 proves unity among developing countries

D) Developing countries can negotiate large coefficients on the Swiss formula for tariff cuts

# DIRECTIONS for the question: Read the passage and answer the question based on it.

# Question No. : 48

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Why is it that the imbalances of the global trading system appear to be catastrophic ?

A) EU has not moved away from its declared position B) US refused to give duty free access to exports from LDCs C) The collective efforts of G-110 failed D) All the above

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

It is easy to accept Freud as an applied scientist, and, indeed he is widely regarded as the twentieth century's master clinician. However, in viewing Marx as an applied social scientist the stance needed is that of a Machiavellian operationalism. The objective is neither to bury nor to praise him. The assumption is simply that he is better understood for being understood as an applied sociologist. This is in part the clear implication of Marx's Theses on Feurbach, which culminate in the resounding 11 thesis: "The philosophers have only interpreted the world in different ways; the point, however, is to change it". This would seem to be the tacit creed of applied scientists everywhere. Marx was no Faustian, concerned solely with understanding society, but a Promethean who sought to understand it well enough to influence and to change it. He was centrally concerned with the social problems of a lay group, the proletariat, and there can be little doubt that his work is motivated by an effort to reduce their suffering, as he saw it. His diagnosis was that their increasing misery and alienation engendered endemic class struggle; his prognosis claimed that this would culminate in revolution; his therapeutic prescription was class consciousness and active struggle. Here, as in assessing Durkheim or Freud, the issue is not whether this analysis is empirically correct or scientifically adequate. Furthermore, whether or not this formulation seems to eviscerate Marx's revolutionary core, as critics on the left may charge, or whether the formulation provides Marx with a new veneer of academic respectability, as critics on the right may allege, is entirely irrelevant from the present standpoint. Insofar as Marx's or any other social scientist's work conforms to a generalized model of applied social science, insofar as it is professionally oriented to the values and social problems of laymen in his society, he may be treated as an applied social scientist. Despite Durkheim's intellectualistic proclivities and rationalistic pathos, he was too much the product of European turbulence to turn his back on the travail of his culture. "Why strive for knowledge of reality, if this knowledge cannot aid us in life," he asked. "Social science," he said, "can provide us with rules of action for the future." Durkheim, like Marx, conceived of science as an agency of social action, and like him was professionally oriented to the values and problems of laymen in his society. Unless one sees that Durkheim was in some part an applied social scientist, it is impossible to understand why he concludes his monumental study of Suicide with a chapter on "Practical Consequences," and why, in the Division of Labor, he proposes a specific remedy for anomie. Durkheim is today widely regarded as a model of theoretic and methodologic sophistication, and is thus usually seen only in his capacity as a pure social scientist. Surely this is an incomplete view of the man who regarded the practical effectiveness of a science as its principal justification. To be more fully understood, Durkheim also needs to be seen as an applied sociologist. His interest in religious beliefs and organization, in crime and penology, in educational methods and organization, in suicide and anomie, are not casually chosen problem areas. Nor did he select them only because they provided occasions for the development of his theoretical orientation. These areas were in his time, as they are today, problems of indigenous interest to applied sociologists in Western society, precisely because of their practical significance.

Why does the author say that Marx was not a Faustian?

A) Because he wanted to understand the society completely B) Marx was a socialist

C) Because he was concerned with more than just understanding the society D) Marx was a Russian

# DIRECTIONS for the question : Read the passage and answer the question based on it.

# Question No. : 50

It is easy to accept Freud as an applied scientist, and, indeed he is widely regarded as the twentieth century's master clinician. However, in viewing Marx as an applied social scientist the stance needed is that of a Machiavellian operationalism. The objective is neither to bury nor to praise him. The assumption is simply that he is better understood for being understood as an applied sociologist. This is in part the clear implication of Marx's Theses on Feurbach, which culminate in the resounding 11 thesis: "The philosophers have only interpreted the world in different ways; the point, however, is to change it". This would seem to be the tacit creed of applied scientists everywhere. Marx was no Faustian, concerned solely with understanding society, but a Promethean who sought to understand it well enough to influence and to change it. He was centrally concerned with the social problems of a lay group, the proletariat, and there can be little doubt that his work is motivated by an effort to reduce their suffering, as he saw it. His diagnosis was that their increasing misery and alienation engendered endemic class struggle; his prognosis claimed that this would culminate in revolution; his therapeutic prescription was class consciousness and active struggle. Here, as in assessing Durkheim or Freud, the issue is not whether this analysis is empirically correct or scientifically adequate. Furthermore, whether or not this formulation seems to eviscerate Marx's revolutionary core, as critics on the left may charge, or whether the formulation provides Marx with a new veneer of academic respectability, as critics on the right may allege, is entirely irrelevant from the present standpoint. Insofar as Marx's or any other social scientist's work conforms to a generalized model of applied social science, insofar as it is professionally oriented to the values and social problems of laymen in his society, he may be treated as an applied social scientist. Despite Durkheim's intellectualistic proclivities and rationalistic pathos, he was too much the product of European turbulence to turn his back on the travail of his culture. "Why strive for knowledge of reality, if this knowledge cannot aid us in life," he asked. "Social science," he said, "can provide us with rules of action for the future." Durkheim, like Marx, conceived of science as an agency of social action, and like him was professionally oriented to the values and problems of laymen in his society. Unless one sees that Durkheim was in some part an applied social scientist, it is impossible to understand why he concludes his monumental study of Suicide with a chapter on "Practical Consequences," and why, in the Division of Labor, he proposes a specific remedy for anomie. Durkheim is today widely regarded as a model of theoretic and methodologic sophistication, and is thus usually seen only in his capacity as a pure social scientist. Surely this is an incomplete view of the man who regarded the practical effectiveness of a science as its principal justification. To be more fully understood, Durkheim also needs to be seen as an applied sociologist. His interest in religious beliefs and organization, in crime and penology, in educational methods and organization, in suicide and anomie, are not casually chosen problem areas. Nor did he select them only because

they provided occasions for the development of his theoretical orientation. These areas were in his time, as they are today, problems of indigenous interest to applied sociologists in Western society, precisely because of their practical significance.

What was the similarity between Marx's and Durkhiem's ideologies?

A) Both were PrometheansB) Both belonged to economically backward classC) Both thought of science as an agency of social actionD) None of these

# DIRECTIONS for the question : Read the passage and answer the question based on it.

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It may be inferred from the passage that the applied social scientist might be interested in all of the following subjects except

A) The theory of mechanics B) Rehabilitation of juvenile delinquents C) How to make workers more efficient D) Reduction of social tensions

DIRECTIONS for the question : Read the passage and answer the question based on it.

# Question No. : 52

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Which of the following best summarizes the author's main point ?

- A) Marx and Durkheim were similar in their ideas
- B) Philosophers, among others, who are regarded as theoreticians can also be regarded as empiricists
- C) Freud, Marx, and Durkheim were all social scientists
- D) Marx and Durkheim were applied social scientists because they were concerned with the solution of social problems

DIRECTIONS for the question : Read the passage and answer the question based on it.

# Question No. : 53

Unemployment is an important index of economic slack and lost output, but it is much more than that. For the unemployed person, it is often a damaging affront to human dignity and sometimes a catastrophic blow to family life. Nor is this cost distributed in proportion to ability to bear it. It falls most heavily on the young, the semiskilled and unskilled, the black person, the older worker, and the underemployed person in a low income rural area who is denied the option of securing more rewarding urban employment.

The concentrated incidence of unemployment among specific groups in the population means far greater costs to society than can be measured simply in hours of involuntary idleness or dollars of income lost. The extra costs include disruption of the careers of young people, increased juvenile delinquency, and perpetuation of conditions which breed racial discrimination in employment and otherwise deny equality of opportunity. There is another and more subtle cost. The social and economic strains of prolonged underutilization create strong pressures for cost-increasing solutions. On the side of labor, prolonged high unemployment leads to "share-the-work" pressures for shorter hours, intensifies resistance to technological change and to rationalization of work rules, and, in general, increases incentives for restrictive and inefficient measures to protect existing jobs. On the side of business, the weakness of markets leads to attempts to raise prices to cover high average overhead costs and to pressures for protection against foreign and domestic competition. On the side of agriculture, higher prices are necessary to achieve income objectives when urban and industrial demand for foods and fibers is depressed and lack of opportunities for jobs and higher incomes in industry keep people on the farm. In all these cases, the problems are real and the claims understandable. But the solutions suggested raise costs and promote inefficiency. By no means the least of the advantages of full utilization will be a diminution of these pressures. They will be weaker, and they can be more firmly resisted in good conscience, when markets are generally strong and job opportunities are plentiful. The demand for labor is derived from the demand for the goods and services which labor participates in producing. Thus, unemployment will be reduced to 4 percent of the labor force only when the demand for the myriad of goods and services - automobiles, clothing, food, haircuts, electric generators, highways, and so on - is sufficiently great in total to require the productive efforts of 96 percent of the civilian labor force. Although many goods are initially produced as materials or components to meet demands related to the further production of other goods, all goods (and services) are ultimately destined to satisfy demands that can, for convenience, be classified into four categories: consumer demand, business demand for new plants and machinery and for additions to inventories, net export demand of foreign buyers, and demand of government units, federal, state, and local. Thus gross national product (GNP), our total output, is the sum of four major components of expenditure; personal consumption expenditures, gross private domestic investment, net exports, and government purchases of goods and services. The primary line of attack on the problem of unemployment must be through measures which will expand one or more of these components of demand. Once a satisfactory level of employment has been achieved in a growing economy, economic stability requires the maintenance of a continuing balance between growing productive capacity and growing demand. Action to expand demand is called for not only when demand actually declines and recession appears but even when the rate of growth of demand falls short of the rate of growth of capacity.

According to the passage, unemployment is an index of

A) over-utilization of capacity B) diminished resources C) economic slack and lost output D) the employment rate

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

# Question No. : 54

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Serious unemployment leads labor groups to demand

A) more jobs by having everyone work shorter hours B) "no fire" policies C) higher wages to those employed D) cost-cutting solutions

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

# Question No. : 55

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when the rate of growth of demand falls short of the rate of growth of capacity.

According to the passage, a typical business reaction to a recession is to press for

A) higher unemployment insurance B) government action C) protection against imports D) restrictive business practices

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

# Question No. : 56

Unemployment is an important index of economic slack and lost output, but it is much more than that. For the unemployed person, it is often a damaging affront to human dignity and sometimes a catastrophic blow to family life. Nor is this cost distributed in proportion to ability to bear it. It falls most heavily on the young, the semiskilled and unskilled, the black person, the older worker, and the underemployed person in a low income rural area who is denied the option of securing more rewarding urban employment.

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The demand for labor is

A) a derived demand B) about 4 percent of the total work force C) declining D) dependent upon technology

**DIRECTIONS for the question:** Complete the sentence by filling in the appropriate blank/blanks from the options provided.

# Question No. : 57

Part of the confusion in our societies \_\_\_\_\_\_ from our pursuit of efficiency and economic growth, in the \_\_\_\_\_\_ that these are the necessary ingredients of progress.

A) stems — conviction B) derives — evaluation C) withdraws — prevaling D) extends — planning E) role - nemesis

**DIRECTIONS for the question:** Complete the sentence by filling in the appropriate blank/blanks from the options provided.

# Question No. : 58

The problem of housing shortage \_\_\_\_\_\_ with the population explosion has also been \_\_\_\_\_\_ by this policy.

A) projected — discussed B) dispensed — acknowledged C) threatened — manifested D) compounded — addressed E) aggregate - sick

**DIRECTIONS for the question:** Complete the sentence by filling in the appropriate blank/blanks from the options provided.

The quality of \_\_\_\_\_\_ between individuals and the organization for which they work can be \_\_\_\_\_\_ to the benefit of both parties.

A) life — conceptualized B) interaction — improved C) service —dumped D) sophistication — developed E) awe - procure

**DIRECTIONS for the question:** Complete the sentence by filling in the appropriate blank/blanks from the options provided.

## Question No. : 60

Handicrafts constitute an important \_\_\_\_\_\_ of the decentralized sector of India's economy and \_\_\_\_\_\_ employment to over six million artisans.

A) factors — aims B) extension — plants C) segment — provides D) period — projects E) gyrate - yoke

**DIRECTIONS for the question:** In the question, there are three sentences given as A, B and C. Find out which two or three sentences convey the same meaning.

#### Question No. : 61

- A. The Manager would like you to help him locate the fault.
- B. If you help him locate the fault, the Manger would like you.
- C. The Manager desires that you should provide him the necessary assistance to locate the fault.

A) A and B B) A and C C) B and C D) All the above

**DIRECTIONS for the question:** In the question, there are three sentences given as A, B and C. Find out which two or three sentences convey the same meaning.

# Question No. : 62

- A. Although the strike of transporters continues, I shall come.
- B. I shall come if the strike of transporters continues.
- C. Even though I come, the strike of transporters is going to continue.

A) A and B B) A and C C) B and C D) None of these

**DIRECTIONS for the question:** In the question, there are three sentences given as A, B and C. Find out which two or three sentences convey the same meaning.

# **Question No. : 63**

- A. Should you need a visa, you must submit an application along with your-passport and a copy of income tax returns.
- B. Unless you do not submit an application along with your passport and a copy of income tax returns, you will not get visa.
- C. If you submit your application along with your passport and a copy of income tax returns, you do not need visa.

A) A and B B) A and C C) B and C D) None of these

**DIRECTIONS for the question:** In the question, there are three sentences given as A, B and C. Find out which two or three sentences convey the same meaning.

#### **Question No. : 64**

- A. The judge remarked that not all the accused were really guilty.
- B. The judge remarked that some of the accused were guilty while others were not.
- C. The judge remarked that all those who were accused included some who were not really guilty.

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A) A and B B) A and C C) B and C D) All the above
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**DIRECTIONS for the question:** In the question, four words are given of which two words are most nearly the same or opposite in meaning. Find the two words which are most nearly the same or opposite in meaning and mark the number of the correct as your answer.

# **Question No. : 65**

A. affected B. desolate C. anxious D. lonely

A) B-D B) A-C C) B-C D) A-D

**DIRECTIONS for the question:** In the question, four words are given of which two words are most nearly the same or opposite in meaning. Find the two words which are most nearly the same or opposite in meaning and mark the number of the correct as your answer.

Question No. : (	66		
A. disruption	B. largesse	C. affection	D. meanness
A) B-D B) B-C	C) C-D D) A-C		

**DIRECTIONS for the question:** In the question, four words are given of which two words are most nearly the same or opposite in meaning. Find the two words which are most nearly the same or opposite in meaning and mark the number of the correct as your answer.

# Question No. : 67

A. awful B. envious C. pleasant D. fair

A) A-B B) A-C C) B-C D) B-D

**DIRECTIONS for the question:** In the question, four words are given of which two words are most nearly the same or opposite in meaning. Find the two words which are most nearly the same or opposite in meaning and mark the number of the correct as your answer.

# Question No. : 68

A. serene		B. jealous		C. identical	D. calm
A) A-B	B) A-D	C) A-C	D) B-C		

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

# Question No. : 69

Teachers and parents alike should realize that to say a particular child is better than the other is doing a great injustice to both the children.

A) say a particular child is better than the other is doing a great injustice to the formerB) say a particular child is better than other is doing a great injustice to both of themC) say a particular child is better than the other is to do a great injustice to both the childrenD) say a particular child is good than the other is doing a great injustice to both the children

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

# Question No. : 70

He sailed for New York on Monday, arriving there on Saturday for the much-awaited inauguration of the new hospital.

A) and arrived there on Saturday for the much-awaited inauguration of the new hospital

B) arriving there on Saturday for the inauguration of the much-awaited new hospital

C) arriving there for the inauguration of the much-awaited new hospital on Saturday

D) and arrived here on Saturday for the long awaited inauguration of the new hospital

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

# Question No. : 71

After trying to convince him for a long time, I realized that he was one of those people who never listens to reason.

A) he was one of those people who never listen to reasonC) he is one of those people who never listens to reasonD) he was one of those people who never listens to reason

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

# **Question No. : 72**

The number of children seeking admission to this college has risen sharply this year, even though it may be only temporarily

A) even though the rise may be only temporaryB) but it may be a temporary rise onlyC) the rise may be only temporaryD) but such a rise may only be a short lived one

**DIRECTION for the question:** Answer the question based on the information given in the passage.

#### **Question No. : 73**

The consumption of harmful drugs by the people can be prevented not only by banning their sale in the market but also by instructing users about their dangerous effects which they must understand for their safety. Also the drug addicts may be provided with proper medical facilities for their rehabilitation. This will help in scaling down the use of drugs.

The passage best supports the statement that consumption of harmful drugs

A) is on increase in the society B) is due to lack of medical facilities C) can always be reduced D) can be eliminated with the help of banning their sale

DIRECTION for the question: Answer the question based on the information given in the passage.

#### **Question No. : 74**

The school has always been the most important means of transferring the wealth of tradition from one generation to the next. This applies today in an even higher degree than in former times for, through the modern development of economy, the family as bearer of tradition and education has become weakened.

This passage best supports the statement that for transferring the wealth of tradition from one generation to the next

A) there are means other than the schoolB) economic development plays a crucial roleC) several different sources must be triedD) modern technology must be put to use

DIRECTION for the question: Answer the question based on the information given in the passage.

# Question No. : 75

One of the important humanitarian by-products of technology is the greater dignity and value that it imparts to human labour. In a highly industrialized society, there is no essential difference between Brahmin and Dalit, Muslim and Hindu; they are equally useful and hence equally valuable, for in the industrial society individual productivity fixes the size of the pay cheque and this fixes social status.

The passage best supports the statement that

A) technology decides individual's social statusB) human labour has dignity and valueC) castes and religions are man madeD) all individuals, irrespective of caste and creed, are born equal

**DIRECTION for the question:** Answer the question based on the information given in the passage.

# Question No. : 76

There is a shift in our economy from a manufacturing to a service orientation. The increase in service-sector will require the managers to work more with people rather than with objects and things from the assembly line.

This passage best supports the statement that

A) managers should have a balanced mindB) interpersonal skills will become more important in the future work placeC) assembly line will exist in service organizationsD) manufacturing organisations ignore importance of people

**DIRECTIONS for the question:** Sentences given in the each, question, when properly sequenced form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the four/five given choices to construct a coherent paragraph.

# Question No. : 77

A. You would be very surprised indeed to find it hot.

- B. Cold, of course.
- C. And yet that was what I found when I visited North Island, the northern part of New Zealand.
- D. When you go bathing in a river or a pond, do you expect the water to be hot or cold ?

# A) ACBD B) CABD C) ACDB D) DBAC

**DIRECTIONS for the question:** Sentences given in the each, question, when properly sequenced form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the four/five given choices to construct a coherent paragraph.

# Question No. : 78

- A. Because, if the manager's subordinates are inefficient and ineffective and are not helped to increase their efficiency and effectiveness, the task may not be achieved.
- B. This must be just as true as the responsibility for achieving his prescribed tasks.
- C. If it is achieved it is at too great a cost, or at the risk of other effects, many of which are less obvious.
- D. It is often said that one of the prime responsibilities of a manager is the training and development of his staff.

# A) ADBC B) CABD C) BDAC D) DBAC

**DIRECTIONS for the question:** Sentences given in the each, question, when properly sequenced form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the four/five given choices to construct a coherent paragraph.

# Question No. : 79

- A. Modern research, however; has proved that there were invaders even before the Aryans poured into this land.
- B. It was thought that they came to a country which was uncivilized and barbarian.
- C. They had evolved a civilization higher than that of the Aryan hordes who came in their wake.
- D. Till recently the Aryans were regarded as the earliest invaders of the land.

A) ABCD B) BCAD C) BDAC D) DBAC

**DIRECTIONS for the question:** Sentences given in the each, question, when properly sequenced form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the four/five given choices to construct a coherent paragraph.

# **Question No. : 80**

- A. Organisations today are becoming increasingly populated by youthful, highly skilled, highly educated workers.
- B. Two of the most prevalent and provocative organizational dynamics of our time are the themes of participation and change.
- C. These demands for participation are creating pressures for internal organizational change which art matched only by external environmental pressures for organizational change.
- D. These young, skilled and educated workers bring with them demands for a voice in the determination of their own organizational destiny a chance to participate in those decisions which affect their organizational lives.

A) ABDC B) BADC C) ABCD D) BCDA

Section : Quant

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No. : 81

There are 4 candidates for the post of a lecturer in Mathematics and one is to be selected by votes of 5 men. The number of ways in which the votes can be given is

A) 1048 B) 1072 C) 1024 D) None of these

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 82

The number of ways in which 6 men and 6 women can dine at a round table if no two women are to sit together is given by

A)  $6! \times 5!$  B)  $5! \times 4!$  C) 30 D)  $7! \times 5!$ 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

## **Question No.: 83**

A student has to answer 10 out of 13 questions in an examination such that he must choose at least 4 from the first five questions. The number of choices available to him is

A) 140 B) 280 C) 196 D) 346

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# **Question No.: 84**

A club consists of members whose ages are in A.P., the common difference being 3 months. If the youngest member of the club is just 7 years old and the sum of the ages of all the members is 250 years, then the number of members in the club are

A) 15 B) 20 C) 25 D) 30

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No.: 85**

A metal cube of edge 12 cm is melted and formed into three smaller cubes. If the edges of two smaller cubes are 6 cm and 8 cm, find the edge of the third smaller cube.

A) 10 cm B) 14 cm C) 12 cm D) 16 cm

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No.: 86**

A well has to be dug out that is to be 22.5 m deep and of diameter 7 m. Find the cost of plastering the inner curved surface at Rs. 3 per sq. metre.

A) Rs. 1465 B) Rs. 1485 C) Rs. 1475 D) Rs. 1495

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### Question No.: 87

Water flows out through a circular pipe whose internal diameter is 2 cm, at the rate of 6 metres per second into a cylindrical tank, the radius of whose base is 60 cm. By how much will the level of water rise in 30 minutes ?

A) 2 m B) 4 m C) 3 m D) 5 m

**DIRECTIONS for the auestion:** Solve the followina auestion and mark the best possible option.

# Question No. : 88

A ladder 15 m long reaches a window which is 9 m above the ground on one side of a street. Keeping its foot at the same point, the ladder is turned to the other side of the street to reach a window 12 m high. Find the width of the street.

A) 19 m B) 21 m C) 20 m D) 22 m

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# **Question No. : 89**

The horizontal distance between two trees of different heights is 60 m. The angle of depression of the top of the first tree when seen from the top of the second tree is 45°. If the height of the second tree is 80 m, find the height of the first tree.

A) 20 m B) 22 m C) 18 m D) 16 m

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### Question No. : 90

The number of ways in which a committee of 3 ladies and 4 gentlemen can be appointed from a meeting consisting of 8 ladies and 7 gentlemen, if Mrs. X refuses to serve in a committee if Mr. Y is its member, is

A) 1960 B) 3240 C) 1540 D) None of these

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

### Question No. : 91

An aeroplane flying at a height of 300 metres above the ground passes vertically above another plane at an instant when the angles of elevation of the two planes from the same point on the ground are 60° and 45°, respectively. Then the height of the lower plane from the ground, in metres, is

A)  $100\sqrt{3}$  B) 50 C)  $100/\sqrt{3}$  D)  $150(\sqrt{3}+1)$ 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 92

A person standing on the bank of a river observes that the angle of elevation of the top of a tree on the opposite bank of the river is 60° and when he retires 40 metres away from the tree the angle of elevation becomes 30°. The breadth of the river is

A) 40 m B) 20 m C) 30 m D) 60 m

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 93

A room has 3 lamps. From a collection of 10 light bulbs of which 6 are not good, a person selects 3 at random and puts them in a socket. The probability that he will have light, is

A) 5/6 B) 1/2 C) 1/6 D) None of these

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No. : 94**

Out of 13 applicants for a job, there are 5 women and 8 men. It is desired to select 2 persons for the job. The probability that atleast one of the selected persons will be a woman is

A) 25/39 B) 5/13 C) 14/39 D) 10/13

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No. : 95

The probability that a certain electronic component fails when first used is 0.10. If it does not fail immediately, the probability that it lasts for one year is 0.99. The probability that a new component will last for one year is

A) 0.891 B) 0.92 C) 0.692 D) None of these

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# **Question No. : 96**

A circular grassy plot of land, 42 m in diameter, has a path 3.5 m wide running around it on the outside. The cost of gravelling the path at Rs. 4 per square metre is

A) Rs. 1002 B) Rs. 3002 C) Rs. 2002 D) Rs. 1802

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### Question No.: 97

A plot of land in the form of a rectangle has a dimension 240 m x 180 m. A drainlet 10 m wide is dug all around it (on the outside) and the earth dug out is evenly spread over the plot, increasing its surface level by 25 cm. The depth of the drainlet is

A) 1.225 m B) 1.229 m C) 1.227 m D) 1.223 m

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No. : 98**

A rectangular tank is 225 m by 162 m at the base. With what speed must water flow into it through an aperture 60 cm by 45 cm so that the level may be raised 20 cm in 5 hours ?

A) 5000 m/hr B) 5400 m/hr C) 5200 m/hr D) 5600 m/hr

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No.: 99

An iron pipe 20 cm long has exterior diameter equal to 25 cm. If the thickness of the pipe is 1 cm, the whole surface of the pipe is

A) 3014.4 cm<sup>2</sup> B) 3268 cm<sup>2</sup> C) 3168 cm<sup>2</sup> D) 3368 cm<sup>2</sup>

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 100

A can do a work in 14 days and B in 21 days. They begin together but three days before completion A leaves. In how many days work is completed ?

A) 10 days B)  $7\frac{1}{5}$  days C)  $5\frac{1}{5}$  days D)  $10\frac{1}{5}$  days

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 101

A can run a kilometer in 4 minutes 54 second and B in 5 minutes. How many meters start can A give B in a kilometer race so that the race end in a dead heat?

A) 20m B) 16m C) 18m D) 14.5m

**DIDECTIONIS for the question:** Solve the following question and mark the best possible ention

DIRECTIONS for the question. Solve the following question and mark the best possible option.

# Question No. : 102

A school has 4 sections of Class X having 40, 35, 45 and 42 students. The mean marks obtained in Chemistry test are 50, 60, 55 and 45 respectively for the 4 sections. Determine the overall average of marks per student.

A) 50.25 B) 52.25 C) 51.25 D) 53.25

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 103

The average score of boys in an examination of a school is 71 and that of girls is 73. The average score of the school in that examination is 71.8. Find the ratio of the number of boys to the number of girls that appeared in the examination.

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

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 104

Company C sells a line of 25 products with an average retail price of Rs. 1,200. If none of these products sells for less than Rs. 420 and exactly 10 of the products sell for less than Rs. 1,000, what is the greatest possible selling price of the most expensive product ?

A) Rs. 2,600 B) Rs. 7,800 C) Rs. 3,900 D) Rs. 11,800

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 105

A sink contains exactly 12 litres of water. If water is drained from the sink until it holds exactly 6 litres of water less than the quantity drained away, how many litres of water were drained away?

A) 2 B) 6 C) 3 D) 9

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 106

A chemist has 10 litres of a solution that is 10 percent nitric acid by volume. He wants to dilute the solution to 4 percent strength by adding water. How many litres of water must he add ?

A) 15 B) 20 C) 18 D) 25

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 107

A company received two shipments of ball bearings. In the first shipment, 1 percent of the ball bearings were defective. In the second shipment, which was twice as large as the first, 4.5 percent of the ball bearings were defective. If the company received a total of 100 defective ball bearings, how many ball bearings were there in the first shipment ?

A) 990 B) 2,000 C) 1,000 D) 3,000

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 108

In a certain laboratory, chemicals are identified by a color-coding system. There are 20 different chemicals. Each one is coded with either a single color or a unique two-color pair. If the order of colors in the pairs doesn't matter, what is the minimum number of different colors needed to code all 20 chemicals with either a single color or a unique pair of colors ?

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No.: 109

Population of a district is 2,96,000 out of which 1,66,000 are males. 50% of the population is literate. If 70% males are literate, the number of women, who are literate, is

A) 32,200 B) 31,800 C) 66,400 D) 48,000

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 110

A train covers 180 km distance in 4 hours. Another train covers the same distance in 1 hour less. What is the difference in the distances covered by these trains in one hour ?

A) 45 km B) 9 km C) 40 km D) None of these

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 111

A boat travels upstream from a point X to a point Y and downstream from Y to X in a total of 6 hours. If the speed of the boat in still water is 4 km and the speed of the current is 2 km, then the distance between X and Y in kms is

A) 9 kms B) 8 kms C) 4 kms D) 6 kms

DIRECTIONS for the question: Solve the following question and mark the best possible option.

# Question No. : 112

R and S start walking towards each other at 10 AM at speeds of 3 km per hour and 4 km per hour respectively. They were initially 17.5 km apart. At what time do they meet ?

A) 2 : 30 PM B) 11 : 30 AM C) 1 : 30 PM D) 12 : 30 PM

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 113

A shopkeeper marks up his goods to gain 35%. But he allows 10% discount for cash payment. His profit on the cash transaction therefore, in percentage, is

A)  $13\frac{1}{2}$  B) 25 C)  $21\frac{1}{2}$  D)  $31\frac{1}{2}$ 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 114

A can do 50% more work as B can do in the same time. B alone can do a piece of work in 20 hours. A, with the help of B, can finish the same work in how many hours ?

# A) 12 B) 8 C) $_{13}\frac{1}{3}$ D) $_{5}\frac{1}{2}$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

# Question No. : 115

Profits of a business are distributed among three partners A, B and C in such a way that 4 times the amount received by A is equal to 6 times the amount received by B and 11 times the amount received by C. The ratio in which the three received the amount is

DIRECTIONS for the question: Solve the following question and mark the best possible option.

## Question No. : 116

A train having a length of 280 metres and traveling at 53 km/hr overtakes another train of length 370 meters in three minutes. What is the speed of train ?

A) 43 km/hr B) 40 km/hr C) 45km/hr D) 46 km/hr

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### Question No. : 117

Students of a class are made to stand in rows. If 4 students are extra in each row, there would be 2 rows less. If 4 students are less in each row, there would be 4 more rows. The number of students in the class is

A) 90 B) 94 C) 92 D) 96

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No. : 118**

A part of monthly expenses of a family is constant and the remaining varies with the price of wheat. When the rate of wheat is Rs. 250 a quintal, the total monthly expenses of the family are Rs. 1000 and when it is Rs. 240 a quintal, the total monthly expenses are Rs. 980. Find the total monthly expenses of the family when the cost of wheat is Rs. 350 a quintal.

A) Rs. 1000 B) Rs. 1400 C) Rs. 1200 D) Rs. 800

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### **Question No. : 119**

A plane left 30 minutes later than the scheduled time and in order to reach the destination 1500 km away in time, it had to increase the speed by 250 km/h from the usual speed. Find its usual speed.

A) 720 km/h B) 740 km/h C) 730 km/h D) 750 km/h

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

#### Question No.: 120

A metallic sheet is of rectangular shape with dimensions 48 cm x 36 cm. From each one of its corners, a square of 8 cm is cut off. An open box is made of the remaining sheet. Find the volume of the box.

A) 5110 cm<sup>3</sup> B) 5130 cm<sup>3</sup> C) 5120 cm<sup>3</sup> D) 5140 cm<sup>3</sup>

## Section : GK

DIRECTIONS for the question: Mark the best option:

#### Question No. : 121

When is the National Press day celebrated ?

A) November 14 B) November 13 C) November 16 D) November 17

**DIRECTIONS for the question:** Mark the best option:

Question No. : 122

Which Indian state was the first to become cashless by 31st December 2016?

A) Goa B) Sikkim C) Assam D) Kerala

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 123

Which Indian short film has won the award at the 2016 UNESCO Salon Youth Video Competition?

A) 3 Shades B) Ambani the investor C) Magical Piano D) Ahlaya

DIRECTIONS for the question: Mark the best option:

# Question No. : 124

Who was the head of newly constituted committee of chief ministers on demonetisation?

A) Manohar Lal Khattar B) Pinarayi Vijayan C) Shaktikanta Das D) N Chandrababu Naidu

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 125

Name the mission that has set the Guinness World Record for highest altitude fix of a GPS signal at 70,000 kilometres above the surface of the Earth by NASA?

A) Magnetometric Multiscale missionB) Magnetometric Mobile missionC) Magnetospheric Multiscale missionD) Magnetosterio Multisector mission

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 126

What is the name of Portuguese professional footballer has won the European Golden Boot award 2016?

A) Maniche B) Rafa Silva C) Renato Sanches D) Luis Figo

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 127

Prime Minister Narendra Modi inaugurated a Digital Exhibition \_\_\_\_\_\_ on the occasion of Rashtriya Ekta Diwas the birth anniversary of Sardar Vallabhbhai Patel on 31st October 2016?

A) Swachh Bharat : Sardar Patel B) Uniting India : Sardar Patel C) Ek Bharat : Sardar Patel D) Digital India : Sardar Patel

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 128

Which Indian snooker has won bronze at IBSF World Snooker Championship 2016?

A) Pankaj Advani B) Geet Sethi C) Manan Chandr D) Aditya Mehta

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 129

The book "Swimmer Among the Stars" has been authored by whom?

A) Kanishk Tharoor B) Nikunj Juneja C) Amitav Ghosh D) AK Ramanujan

## Question No. : 130

The \_\_\_\_\_\_is observed every year across the world on 19 November to raise awareness and inspire action to tackle the global sanitation crisis.

A) World Toilet Day B) World swachhta day C) World cleanliness day D) World sanitation day

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 131

The COP22 to the UNFCC, 12th session of COP of Parties to Kyoto Protocol (CMP 12), and first session of COP of Parties to the Paris Agreement (CMA 1) were held in\_\_\_\_\_\_. Nearly 200 nations attended the 11-day meeting and the meeting concluded with all participating member nations collectively reaffirming their commitment to climate action under Paris Agreement adopted in November 2015.

A) Marrakech, Morocco B) Durban, SA C) Kigali, Rwanda D) Darwin, Australia

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 132

Doctors from \_\_\_\_\_have performed the first-ever brain implant on a 58-year-old woman paralysed by Lou Gehrig's disease (also known as amyotrophic lateral sclerosis-ALS). With this, she became the first patient to use a brain-computer interface. The implant has enabled paralysed women to communicate in day-to-day life via a speech computer.

A) Netherlands B) Norway C) England D) Sweden

## **DIRECTIONS for the question:** Mark the best option:

#### Question No. : 133

Which country has officially withdrawn from International Criminal Court (ICC) pulling out of the 2002 Rome Statute, which establishes the ICC's status and powers.

A) Russia B) Holland C) Maldives D) China

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 134

Who has been bestowed with the 2016 Reporters Without Borders (RSF) - TV5 Monde Press Freedom Prize in journalist category?

A) Hadi Abdullah B) Zaina Erhaim C) Li Tingyu D) Inan Kizilkaya

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 135

Who has been appointed as MD & CEO of Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI)?

A) Rishabh Jain B) Praveen Kumar Sharma C) Kirti Singh D) Sudha Singhvi

DIRECTIONS for the question: Mark the best option:

#### Question No. : 136

Who has been conferred the 2016 Mother Teresa Memorial International Award for Social Justice?

A) Hishaam Hussain B) Faraaz Ayaaz Hussain C) Abinta Kabir D) Tarishi Khan

# Question No. : 137

With respect to the President of India, which among the following statements is / are correct?

A person who has been president of India is eligible for immediate re-election
 A person cannot hold the office of president of India for more than two consecutive terms Choose the correct option from the codes given below:

A) Only 1 B) Only 2 C) Both 1 & 2 D) Neither 1 nor 2

DIRECTIONS for the question: Mark the best option:

# Question No. : 138

Which committee has been formed for recommendation on border protection?

A) Madhukar Gupta Committee B) H Devaraj Committee C) Sivaramakrishnan committee D) R S Sharma Expert Committee

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 139

What was the theme of the 2016 Vigilance Awareness Week?

A) Combating Corruption – Technology as an enabler

B) Public participation in promoting integrity and eradicating Corruption

C) Preventive Vigilance as a tool of Good Governance D) Promoting Good Governance: Positive contribution of vigilance

# **DIRECTIONS for the question:** Mark the best option:

# Question No. : 140

Who has been awarded the Lifetime Achievement Award at the 47th Edition of the International Film Festival of India (IFFI) 2016?

A) Im Sang-soo B) Lee Joon-ik C) Im Kwon Taek D) Song Il-gon

# DIRECTIONS for the question: Mark the best option:

# Question No. : 141

Name the Former Comptroller and Auditor General of India has been appointed as the chairman of the Fund Trustee and Advisory Commission (FTAC), Kerala?

A) Sanjay Mittal B) Rajesh Khanna C) Vinod Rai D) Abhijit Gupta

DIRECTIONS for the question: Mark the best option:

# **Question No. : 142**

Govt. has demonetised old currency Rs. 500/- & Rs. 1000/- notes w.e.f.

A) 6<sup>th</sup>November 2016 B) 7<sup>th</sup>November 2016 C) 8<sup>th</sup>November 2016 D) 9<sup>th</sup>November 2016

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 143

Asia's first cycle highway has been inaugurated in which state?

A) Uttar Pradesh B) Haryana C) Bihar D) Gujarat

# **DIRECTIONS for the question:** Mark the best option:

# Question No. : 144

10 day long, Losar Festival is celebrated in which region of India?

A) Jammu & Kashmir B) Manipur C) Meghalaya D) Himachal Pradesh

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 145

World Health Organisation (WHO) on 24 November 2016 has settled a long standing dispute and battle between India and which organisation about labeling of drugs?

A) The South Asian Association for Regional Cooperation (SAARC) B) D8 (Developing 8) C) G8 Countries D) European Union (EU)

**DIRECTIONS for the question:** Mark the best option:

# Question No.: 146

Union Government has decided to distribute pulses vide which offices across the country?

A) Excise Department offices B) Income Tax Offices C) Post Offices D) All India Radio

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 147

Central Government has announced how many new smart cities from the 63 cities based on "Smart City Challenge Competition" by Union Minister Venkaiah Naidu in New Delhi?

A) 26 B) 27 C) 28 D) 29

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 148

The Transforming India portal has been launched by which union ministry?

A) Ministry of Urban Development B) Ministry of Home Affairs C) Ministry of Finance D) Ministry of Law and Justice

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 149

Which ancient site of India has recently declared as the UNESCO World Heritage Site?

A) Mountain Railways of India B) Churches and Convents of Goa C) Nalanda Mahavihara D) Mahabodhi temple

**DIRECTIONS for the question:** Mark the best option:

#### Question No. : 150

DRDO has signed pact with which IITs for Centre for Propulsion Technology (CoPT)?

A) IIT Bombay and IIT Madras B) IIT Indore and IIT Mandi C) IIT Delhi and IIT Bhubaneswar D) IIT Kharagpur and IIT Madras

# DIRECTIONS for the question: Mark the best option:

The report titled "The Rise of Environmental Crime" has been released by which environmental organization?

A) Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

B) United Nations Environment Programme (UNEP) C) International Union for Conservation of Nature (IUCN) D) Intergovernmental Panel on Climate Change (IPCC)

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 152

"Biotech-KISAN scheme" has been launched to empower small and women farmers. What does "KISAN" stands for?

A) Krishi Innovation Scientific Application NetworkB) Krishi Innovation Skill Application NetworkC) Krishi Innovation Science Application NetworkD) Krishi Innovation Sector Application Network

# **DIRECTIONS for the question:** Mark the best option:

# Question No. : 153

RBI has relaxed the withdrawal limits for deposits made in legal tender beyond the restrict limit of Rs 24,000 and Rs 50,000 for saving accounts and Current accounts respectively from 29 November 2016. RBI has the sole right to issue current note under which Act?

A) Section 2 of the Reserve Bank of India Act, 1934
B) Section 12 of the Reserve Bank of India Act, 1934
C) Section 22 of the Reserve Bank of India Act, 1934
D) Section 32 of the Reserve Bank of India Act, 1934

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 154

Which bank has announced a Digital Village initiative to convert 100 villages into digital in 100 days?

A) ICICI Bank B) HDFC Bank C) Axis Bank D) Yes Bank

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 155

Which country has launched 'bond notes' currency in bid to ease cash crunch and is pegged at par with the US dollar and is backed by a \$200 million bond facility?

A) Zambia B) Zimbabwe C) Libya D) Namibia

**DIRECTIONS for the question:** Mark the best option:

# Question No. : 156

Match the name of the organization with the name of the city in which it is headquartered

Organization	H	Headquarters	
I. International Monetary Fund	a	a. Lausanne	
II. International Olympic Comn	nittee k	b. Geneva	
III. International Labour Organ	isation	c. Washington	
IV. International Chamber of C	ommerce	d. Paris	
A) I-d; II-c; III-a; IV-b B) I-a; II-	-b; III-d; IV-c C) I-c	c; II-a; III-b; IV-d	D) I-b; II-d; III-c; IV-a

DIRECTIONS for the question: Mark the best option:

# Question No. : 157

"Airlander 10" the world's largest aircraft has successfully makes its first flight, is belonged to which country?

A) United States B) United Kingdom C) France D) Japan

## Question No. : 158

Who has become India's first woman to join the International Olympic Committee?

A) P.T. Usha B) Preity Zinta C) Nita Ambani D) Deepika Arora

**DIRECTIONS for the question:** Mark the best option:

### Question No. : 159

Which mobile app has been launched by Islamic State (IS) for children to teach them Arabic?

A) Jannat B) Gaafil C) Huroof D) Nasheed

DIRECTIONS for the question: Mark the best option:

### Question No. : 160

The Laser Interferometer Gravitational-Wave Observatory (LIGO) detectors are located in which country?

A) France B) United States C) Germany D) United Kingdom

### Section : DI

**DIRECTIONS for the question:** The question below is followed by two statements marked A and B. Mark as your answer.

### **Question No. : 161**

Does rectangle A have a greater perimeter than rectangle B?

- A. The length of a side of rectangle A is twice the length of a side of rectangle B.
- B. The area of rectangle A is twice the area of rectangle B.
- A) if statement A by itself is sufficient to answer the question, but statement B by itself is not;
- B) if statements A and B taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- C) if statement B by itself is sufficient to answer the question, but statement A by itself is not;
- D) if either statement by itself is sufficient to answer the question

**DIRECTIONS for the question:** The question below is followed by two statements marked A and B. Mark as your answer.

### Question No. : 162

If there is an average of 250 words on each page, how many pages can Michael read in an hour?

- A. There is an average of 25 ten-word lines on each page.
- B. Michael can read 30 ten-word lines per minute.
- A) if statement A by itself is sufficient to answer the question, but statement B by itself is not;
- B) if statements A and B taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- C) if statement B by itself is sufficient to answer the question, but statement A by itself is not;
- D) if either statement by itself is sufficient to answer the question

**DIRECTIONS for the question:** The question below is followed by two statements marked A and B. Mark as your answer.

### Question No. : 163

If he did not stop along the way, what speed did Bill average on his 3 hour trip?

A. He travelled a total of 120 miles.

B. He travelled half the distance at 30 miles per hour and half the distance at 60 miles per hour.

- A) if statement A by itself is sufficient to answer the question, but statement B by itself is not;
- B) if statements A and B taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- C) if statement B by itself is sufficient to answer the question, but statement A by itself is not;
- D) if either statement by itself is sufficient to answer the question

**DIRECTIONS for the question:** The question below is followed by two statements marked A and B. Mark as your answer.

## Question No. : 164

On a certain construction crew there are 3 carpenters for every 2 painters. What percent of the entire crew are carpenters or painters?

- A. Eighteen percent of the crew are carpenters.
- B. Twelve percent of the crew are painters.
- A) if statement A by itself is sufficient to answer the question, but statement B by itself is not;
- B) if statements A and B taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- C) if statement B by itself is sufficient to answer the question, but statement A by itself is not;
- D) if either statement by itself is sufficient to answer the question

**DIRECTIONS for the question:** The question below is followed by two statements marked A and B. Mark as your answer.

### Question No. : 165

Are at least 20 percent of the people in City H who are 30 years old or older bilingual?

- A. In City H, 30 percent of the population is at least 30 years old.
- B. In City H, of the population 30 years old or older, 18 percent of the women and 17 percent of the men are bilingual.

A) if statement A by itself is sufficient to answer the question, but statement B by itself is not;

- B) if statements A and B taken together are sufficient to answer the question, even though neither statement by itself is sufficient;
- C) if statement B by itself is sufficient to answer the question, but statement A by itself is not;
- D) if either statement by itself is sufficient to answer the question

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

## Question No. : 166

The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the table. The demand is given in million barrels per day crude oil equivalent.

		2005		2010		2020
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	1.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

Which is the fuel whose proportion in the total energy demand will increase continuously over the period 2005-2020 in Asia?

A) Natural Gas B) Both Natural Gas and Hydropower C) Hydropower D) Nuclear

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

# Question No. : 167

The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the table. The demand is given in million barrels per day crude oil equivalent.

		2005		2010		2020
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	1.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

Which is the fuel whose proportion in the total energy demand will remain almost unaltered from 2005 to 2010 in Asia?

A) Petroleum B) Solid fuels C) Natural Gas D) Nuclear

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

## Question No. : 168

The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the table. The demand is given in million barrels per day crude oil equivalent.

		2005		2010		2020
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	1.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

For which source of energy is the demand in 2020 as a ratio of demand in 2005 in the Asian region the greatest?

A) Natural Gas B) Nuclear C) Solid fuels D) Hydropower

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

## Question No. : 169

The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the table. The demand is given in million barrels per day crude oil equivalent.

		2005		2010		2020
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	1.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

Which is the fuel for which demand in the rest of the world (excluding Asia) as a proportion of total energy demand of the world (including Asia) shows continuous decrease over the period?

A) Solid fuels and Natural Gas B) Hydropower and Petroleum C) Solid fuels and Hydropower D) None of these

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

### Question No. : 170

The forecasts of the World and Asian energy demand for the years 2005, 2010 and 2020 are given in the table. The demand is given in million barrels per day crude oil equivalent.

		2005		2010		2020
	World	Asia	World	Asia	World	Asia
Petroleum	56.0	8.0	86.0	1.5	108.0	18.0
Natural Gas	38.0	1.5	67.0	2.5	96.0	4.5
Solid fuels	46.0	6.0	54.0	13.0	67.0	15.4
Nuclear	8.0	2.0	9.0	4.8	12.0	5.5
Hydropower	12.0	1.5	14.0	2.2	17.0	4.6
Total	160.0	19.0	230.0	34.0	300.0	48.0

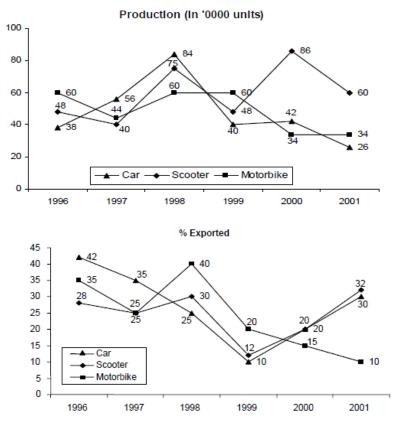
Over 2005 - 2020, which two fuels meet more than 60 percent of the total energy demand of the World and Asia, both?

A) Nuclear and Hydropower B) Nuclear and Solid fuels C) Hydropower and Solid fuels D) None of these

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

#### Question No. : 171

The following line graphs which show the production (in '0000 units) and percentage exported of scooters, motorbikes and cars respectively over the years.

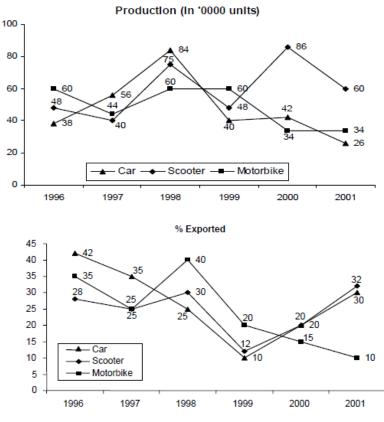


In which of the following years was the production of cars more than 50% of the total production?

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

### Question No. : 172

The following line graphs which show the production (in '0000 units) and percentage exported of scooters, motorbikes and cars respectively over the years.

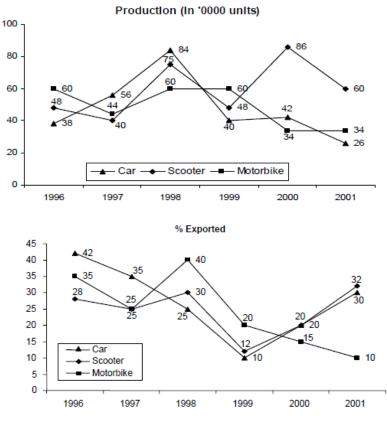


Find the total number of automobiles exported in the year 1999

A) 227600 B) 207600 C) 217600 D) 220000

## Question No. : 173

The following line graphs which show the production (in '0000 units) and percentage exported of scooters, motorbikes and cars respectively over the years.

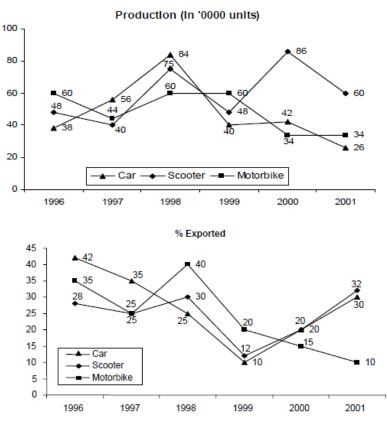


Find the ratio of cars, scooters and motorbikes exported in 1996

A) 25 : 16 : 19 B) 16 : 25 : 19 C) 19 : 16 : 25 D) 266 : 168 : 63

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

The following line graphs which show the production (in '0000 units) and percentage exported of scooters, motorbikes and cars respectively over the years.

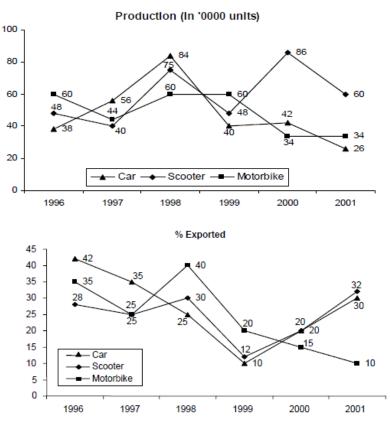


If the ratio of export prices of a car, scooter and motorbike was 2:1:1.5 in 1998, what was the proportion of their export earnings ?

A) 28 : 15 : 24 B) 6 : 1 : 21 C) 30 : 16 : 21 D) 20 : 12: 9

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

The following line graphs which show the production (in '0000 units) and percentage exported of scooters, motorbikes and cars respectively over the years.



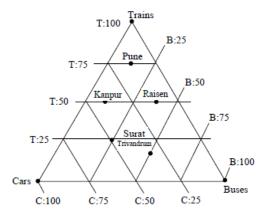
In which of the following years was the production of motorbikes exactly 40% of the total production of automobiles in that year?

A) 2001 B) 2000 C) 1999 D) 1996

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

### Question No.: 176

A survey was conducted in five cities viz. Pune, Kanpur, Raisen, Surat and Trivandrum, for the percentage of people using T (trains), B (buses), C (cars) as modes of transport. The number of persons surveyed in the cities Pune, Kanpur, Raisen, Surat and Trivandrum are 2000, 4000, 6000, 3000 and 8000 respectively.

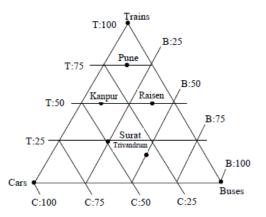


The city where the least number of person use buses is

A) Surat B) Raisen C) Kanpur D) Pune

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

A survey was conducted in five cities viz. Pune, Kanpur, Raisen, Surat and Trivandrum, for the percentage of people using T (trains), B (buses), C (cars) as modes of transport. The number of persons surveyed in the cities Pune, Kanpur, Raisen, Surat and Trivandrum are 2000, 4000, 6000, 3000 and 8000 respectively.



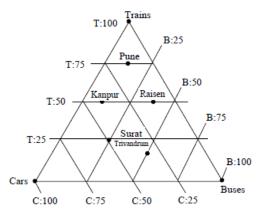
The average number of persons using train for transportation in Pune, Kanpur, Raisen and Trivandrum is

A) 1880 B) 1750 C) 1950 D) None of these

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

### Question No.: 178

A survey was conducted in five cities viz. Pune, Kanpur, Raisen, Surat and Trivandrum, for the percentage of people using T (trains), B (buses), C (cars) as modes of transport. The number of persons surveyed in the cities Pune, Kanpur, Raisen, Surat and Trivandrum are 2000, 4000, 6000, 3000 and 8000 respectively.

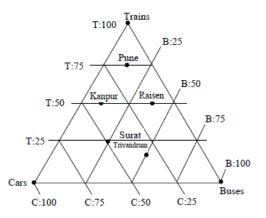


The mode of transport used by the least number of persons in all the given cities is

A) Trains B) Buses C) Cars D) Cars and Buses

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

A survey was conducted in five cities viz. Pune, Kanpur, Raisen, Surat and Trivandrum, for the percentage of people using T (trains), B (buses), C (cars) as modes of transport. The number of persons surveyed in the cities Pune, Kanpur, Raisen, Surat and Trivandrum are 2000, 4000, 6000, 3000 and 8000 respectively.



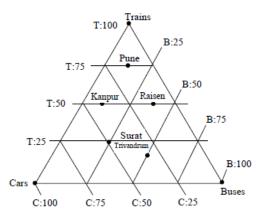
Among the given five cities, the cities where less than 30% of the people use cars for transport are

A) Kanpur and Trivandrum B) Pune, Kanpur and Raisen C) Pune and Raisen D) Pune, Kanpur and Surat

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

#### Question No. : 180

A survey was conducted in five cities viz. Pune, Kanpur, Raisen, Surat and Trivandrum, for the percentage of people using T (trains), B (buses), C (cars) as modes of transport. The number of persons surveyed in the cities Pune, Kanpur, Raisen, Surat and Trivandrum are 2000, 4000, 6000, 3000 and 8000 respectively.



Which of the following statements is *not* true ?

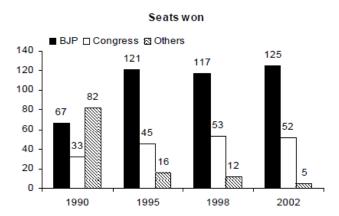
A) 50% of the people use trains for transport in the cities Kanpur and Raisen

B) In city Trivandrum, more than 50% of the people use cars for transport

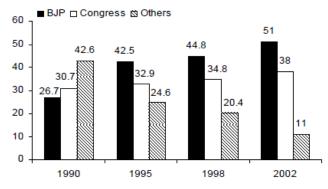
C) More percentage of people use buses for transport in the city Surat than in the city Pune

D) In city Raisen, there are more percentage of people using trains for transport than buses

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.



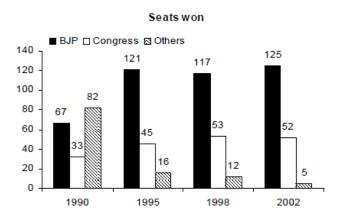
Valld votes polled (In %)



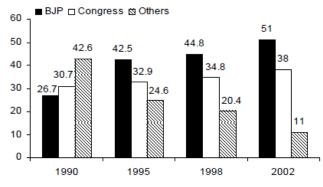
If the total number of valid votes in 2002 Gujarat election was 5 crore then, find the average number of votes for winning one seat for other political parties

A) 11 lakh B) 1.10 lakh C) 1.10 crore D) Data is inadequate

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.



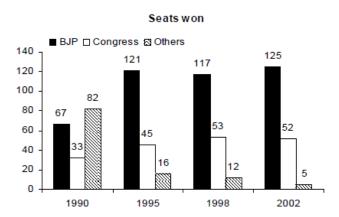
Valld votes polled (In %)



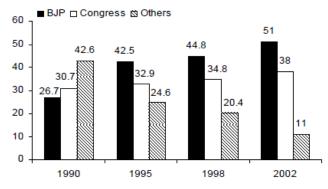
In which of the following years was the number of seats won by BJP maximum with respect to the previous given year ?

A) 1998 B) 1995 C) 2002 D) 1995 and 2002

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.



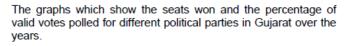
Valid votes polled (in %)

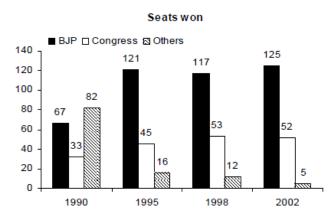


In 1998, if 2.24 crore people votes were valid for BJP, whereas in 1990 there were 1.228 crore people votes valid for Congress, by what percent was the number of valid votes less in 1990 with respect to that in 1998 ?

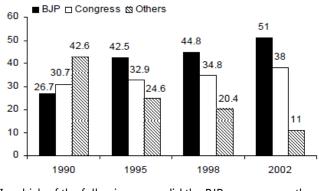
A) 20% B) 24% C) 30% D) 25%

DIRECTIONS for the question: Analyse the graph/s given below and answer the question that follows.





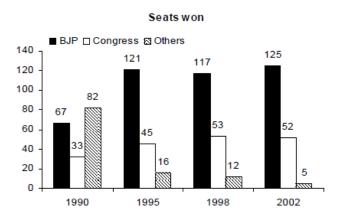
Valid votes polled (in %)



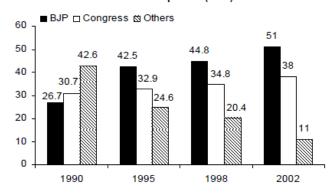
In which of the following years did the BJP secure more than 66 2/3% of the total seats ?

A) 1990 B) 1998 C) 1995 D) 2002

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.



Valid votes polled (in %)



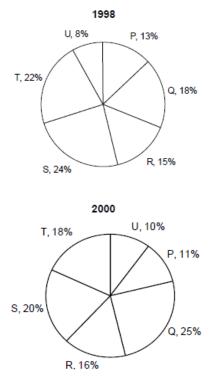
In which of the following years, was the difference in the number of valid votes for any two political parties the maximum?

A) 1990 B) 1998 C) 1995 D) Cannot be determined

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

## Question No. : 186

The following graphs which show the number of workers in different categories of a factory, for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.



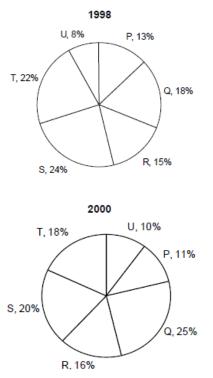
In which of the categories is the number of workers same in both the years?

A) P B) S C) R D) T E) None of these

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

#### Question No.: 187

The following graphs which show the number of workers in different categories of a factory, for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.

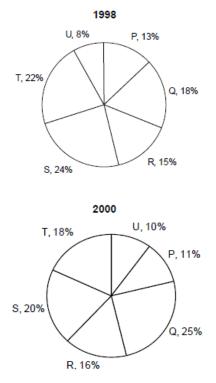


Find the percentage increase in the number of workers in category U from year 1998 to 2000.

A) 25% B)  $_{33}\frac{1}{3}\%$  C) 50% D)  $_{66}\frac{2}{3}\%$  E) None of these

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

The following graphs which show the number of workers in different categories of a factory, for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.



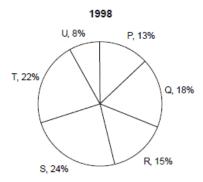
What is the total number of increased workers for the categories in which the number of workers has been increased?

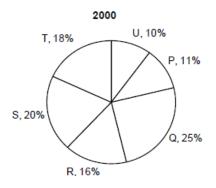
A) 468 B) 382 C) 408 D) 168 E) None of these

DIRECTIONS for the question: Go through the pie chart/s given below and answer the question that follows.

### Question No.: 189

The following graphs which show the number of workers in different categories of a factory, for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.



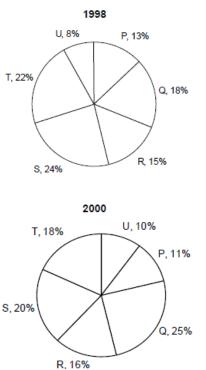


Which categories have shown decrease in the number of workers from 1998 to 2000?

DIRECTIONS for the question: Go through the pie chart/s given below and answer the question that follows.

### Question No. : 190

The following graphs which show the number of workers in different categories of a factory, for two different years. The total number of workers in 1998 was 2000 and in 2000 was 2400.



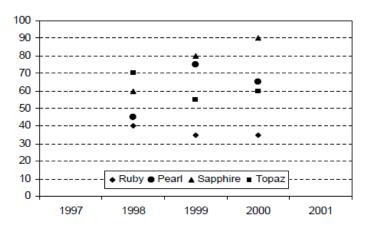
Find the maximum difference between the number of workers of any two categories taken together for any one year and that of any two for the other year.

A) 660 B) 416 C) 636 D) 502 E) None of these

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

## Question No. : 191

The scatter diagram shows the number of students passing in the high school examination in the given years from the four houses of a Public School.



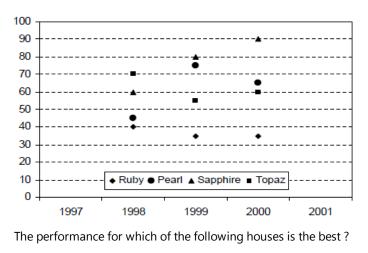
The average number of students for each house who have passed in the given years is approximately:

A) 59 B) 52 C) 63 D) 56

### DIRECTIONS for the question: Analyse the graph/s given below and answer the question that follows.

#### Question No.: 192

The scatter diagram shows the number of students passing in the high school examination in the given years from the four houses of a Public School.

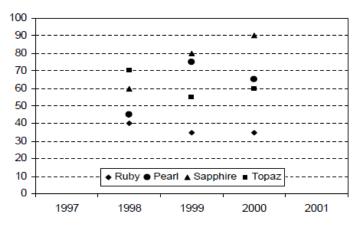


A) Pearl B) Ruby C) Topaz D) Sapphire

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

### Question No.: 193

The scatter diagram shows the number of students passing in the high school examination in the given years from the four houses of a Public School.



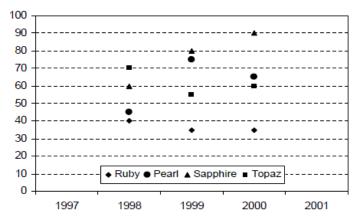
For which of the following houses is the percentage change in the results maximum for any year over the previous year ?

A) Topaz B) Pearl C) Sapphire D) Ruby

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

#### Question No.: 194

The scatter diagram shows the number of students passing in the high school examination in the given years from the four houses of a Public School.



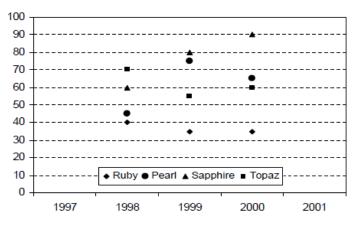
If the trend observed between 1999 and 2000 continues in the next year, what will be the approximate number of students passing the exam in 2001 ?

A) 245 B) 237 C) 268 D) 255

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

#### Question No.: 195

The scatter diagram shows the number of students passing in the high school examination in the given years from the four houses of a Public School.



The number of students keeps on increasing by 50 every year. In 1998, there were 250 students. For which of the following years is the performance best in the school ?

A) 1998 B) 2000 C) 1999 D) Cannot be determined

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

# Question No. : 196

Distribution of Students According to Professional Courses						
			Fac	ulty		
Sr. No.	. No. Course	Α	rts	Science		
51. 140.		Girls	Boys	Girls	Boys	
1.	Business Management	25	45	25	65	
2.	Typewriting	23	186	20	32	
3.	Costing	25	120	12	58	
4.	Typewriting & Costing	12	100	3	5	

If 60% of boys and 70% of girls are successful in the courses taken by them, what is the combined pass percentage?

### A) 54% B) 58% C) 62% D) 66%

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

### Question No. : 197

Distribution of Students According to Professional Courses							
			Facu	ulty			
Sr. No.	. No. Course		rts	Science			
51.110.	course	Girls	Boys	Girls	Boys		
1.	Business Management	25	45	25	65		
2.	Typewriting	23	186	20	32		
3.	Costing	25	120	12	58		
4.	Typewriting & Costing	12	100	3	5		

Percentage of girls among total number of students doing which course is higher than the percentage of girls in any other course?

A) Business Management B) Typewriting C) Costing D) Typewriting and costing

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

### Question No. : 198

Distribution of Students According to Professional Courses						
			Faci	ulty		
Sr No	r. No. Course	Α	rts	Science		
51.140.		Girls	Boys	Girls	Boys	
1.	Business Management	25	45	25	65	
2.	Typewriting	23	186	20	32	
3.	Costing	25	120	12	58	
4.	Typewriting & Costing	12	100	3	5	

By what percent, the number of students doing Typewriting only is more than the number of students doing Business Management only?

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

### Question No. : 199

Distribution of Students According to Professional Courses						
			Faci	ulty		
Sr. No.	Course	Arts		Science		
		Girls	Boys	Girls	Boys	
1.	Business Management	25	45	25	65	
2.	Typewriting	23	186	20	32	
3.	Costing	25	120	12	58	
4.	Typewriting & Costing	12	100	3	5	

Percentage of students of Arts faculty doing Costing only is

#### A) 10% B) 15% C) 18% D) 27%

DIRECTIONS for the question: Study the table/s given below and answer the question that follows.

# Question No. : 200

Distribution of Students According to Professional Courses						
			Fac	ulty		
Sr No	Sr. No. Course	Arts		Science		
51.110.		Girls	Boys	Girls	Boys	
1.	Business Management	25	45	25	65	
2.	Typewriting	23	186	20	32	
3.	Costing	25	120	12	58	
4.	Typewriting & Costing	12	100	3	5	

Taking all the courses together, by what percentage the boys exceed girls?

A) 250% B) 280% C) 308% D) 321%

# QNo:- 1 ,Correct Answer:- B

### **Explanation:**-

1st day	2nd day	3rd day
(Afternoon)		(evening)
Inward Clerk	Senior Clerk	Desk Officer
(Wednesday)	(Thursday)	(Friday)

Now, Move backwards starting from Friday, then Thursday and then to the receiving day i.e one day before Thursday, being Wednesday. Thus option B.

## QNo:- 2 ,Correct Answer:- B

**Explanation:**-

Total no. of students can be predicted from Kashish's position = 13 + 6 - 1 = 18. So this implies Mona's position from the right is  $(18 - 5 + 1) = 14^{th}$ .

### QNo:- 3 ,Correct Answer:- D

### **Explanation:**-

Required series is, 3, 6, 9,12,..... Hence, 9th number is,  $3 \times 9 = 27$ .

### QNo:- 4 ,Correct Answer:- C

**Explanation:**-After arranging alphabets as per the requirement we get as M, L, K, J, I, H, G, F, E, D, C, B, A Now, 9th letter from the right is 18th from the left i.e. R and 9th letter to its left is E according to the new arrangement.

### QNo:- 5 ,Correct Answer:- D

### **Explanation:**-

Let the ages of father, mother, son and daughter be f, m, s and d respectively. According to the given conditions, f = 3d....(i), s = m/2....(ii), f - m = 9.....(iii), s - d = 7....(iv). Now, using (i) in (iii) we get, 3d - m = 9 ....(v) and using (ii) in (iv) we get, m/2 - d = 7.....(vi). Solving (v) and (vi) we get, m = 60 years.

## QNo:- 6 ,Correct Answer:- A

### **Explanation:**-

No. of Students = x, Per head contribution = 96/x. As per the condition, 96/(x - 4) - 96/x = 4, 96 = x (x - 4) = x = 12. So the number of students who attended = 12 - 4 = 8.

## QNo:- 7 ,Correct Answer:- B

### **Explanation:**-

5% of 120 i.e. 6 play all instruments and 30 play any two. Since 40 play guitar alone, the remaining people would be 120 - 6 - 30 - 40 = 44, who play violin alone or flute alone. Thus option B.

## QNo:- 8 ,Correct Answer:- A

## **Explanation:**-

Only English =21 - 10 = 11. So only Hindi = 50 - 21 = 29, Hindi = 29+10 = 39. Hence Hindi =39, only Hindi =29, Only English =11

### QNo:- 9 ,Correct Answer:- B

### **Explanation:**-

The word is PUMPKIN and the last letter is N.

## QNo:- 10 ,Correct Answer:- C

### **Explanation:**-

Let the number of hens, cows, bullocks and keepers be represented by H,C,B and K respectively

Then we have : Number of heads = H + C + B + KNumber of legs = 2H + 4C + 4B + 2KSo, H + C + B + K + 69 = 2H + 4C + 4B + 2KOr H + C + B + K + 69 = 4(H + C + B) + 2K - 2H - -----(i)Also, C = 2B - ------(ii), C = H - ------(iii), H + C + B = 10K - ------(iv)  $H + C + B + K \le 50$  - ------(v) Putting H + C + B = 10K in (i), we get : 11 K + 69 = 42 K - 2 H or 31 K - 2H = 69 or 2H = 31 K - 69 - ------(vi) putting H + C + B = 10 K in (v), we get  $11 K \le 50$  or  $K \le 4$ thus K = 1,2,3 or 4Putting K = 1 or 2 we get negative values of H, which is not possible. Putting K = 4 we get fractional values of H, which is not possible. Putting K = 3 we get H = 12So, C = H = 12.

### QNo:- 11 ,Correct Answer:- A

### **Explanation:**-

By stating that he behaved like a mad man, the author implicitly shows that this was an aberration to his normal behaviour- thus, he is not a mad man.

### QNo:- 12 ,Correct Answer:- D

#### **Explanation:**-

*I* is a broad-based restatement as it is not about the professional in any field, while *II* is weak, as it is not that one is always interested in earning something which is hard earned.

#### QNo:- 13 ,Correct Answer:- D

#### **Explanation:**-

Notices are supposedly read by all. The first is not implicit as the statement does not say anything about the choice of employees and the second is a far-fetched and fallacious assumption.

#### QNo:- 14 ,Correct Answer:- A

### **Explanation:**-

The second is a general statement. The first is implicit because that give the very reason for the presence of the advertisement. It targets that section.

#### QNo:- 15 ,Correct Answer:- A

#### **Explanation:**-

The statement mentions quickly. The second one is not implicit because the reluctance to pay double is not shown in the statement.

#### QNo:- 16 ,Correct Answer:- B

### **Explanation:**-

All three letters in a group are consecutive letters in reverse order. So, the next group will be YXW.

## **Explanation:**-

19 ×2 = 38, 38 × 3 = 114, Hence, 114 × 4 = 456.

## QNo:- 18 ,Correct Answer:- A

### **Explanation:**-

*First letter is moving backward with gap of 1 letter. Second letter moving forward with gap of 0, 1, 2......Third letter is moving forward with gap of 1 and 2 alternatively. So the next group will be QOL.* 

## QNo:- 19 ,Correct Answer:- B

### **Explanation:**-

First letter is moving forward with 1,2,3.... Second letter moving backward with 1, 2.....So the next group will be JQ.

# QNo:- 20 ,Correct Answer:- C

### **Explanation:-**

Sum of the 1<sup>st</sup> and 3<sup>rd</sup> is placed on the first position, second letter move backwards and third number is written by adding 2. So the next group is 47U15.

### QNo:- 21 ,Correct Answer:- B

### **Explanation:**-

1st option is not possible as M cannot be without J and R cannot be without K. As we can take anyone of J and K, either M or R would be left without its partner.

3<sup>rd</sup> option has O and N together which is not possible. In 4<sup>th</sup> option M has to be with J, but not with I. 2nd option satisfies all conditions.

## QNo:- 22 ,Correct Answer:- C

### **Explanation:**-

If R is there, K has to be there. This is possible in  $3^{rd}$  option only.

## QNo:- 23 ,Correct Answer:- B

**Explanation:**- $2^{nd}$  option has N and O together which cannot happen.

# QNo:- 24 ,Correct Answer:- A

## **Explanation:**-

If K and P are there, R and Q have to be in. Thus third option goes out. 4<sup>th</sup> option has I and J together which is not possible. 2nd option will have P,Q,R as boy participants, thus we don't have N with H. Hence 1<sup>st</sup> option.

## QNo:- 25 ,Correct Answer:- B

**Explanation:**-

If J and K are there, I, G & H are the option for girls available. I cannot be with J. Both G and H cannot be taken, thus  $1^{st}$  option is out. N and O cannot be together as in  $3^{rd}$  &  $4^{th}$  option. Thus  $2^{nd}$  option.

# QNo:- 26 ,Correct Answer:- C

## **Explanation:**-

Ankush is facing north west while crossing diagonally from A. When he turns right, he is facing North east. After turning left again, he faces North west again.

### QNo:- 27 ,Correct Answer:- A

### **Explanation:**-

A reaches C's position and B reaches D's position. C reaches A's position and D reaches B's position. Thus making it CBDA. Hence 1<sup>st</sup> option.

### QNo:- 28 ,Correct Answer:- A

## **Explanation:**-

Moving B one and a half length clockwise, it will reach mid of A and C. Similarly, moving D one and half length anticlockwise, it will also reach in the mid of A and C. (Option A)

### QNo:- 29 ,Correct Answer:- D

### **Explanation:-**

When C and A move diagonally, C reaches B's position & A reaches D's position. When B and D move one side each clockwise and anti-clockwise respectively B reaches A's position and D reaches C's position.

Hence A is now at south west corner.

### QNo:- 30 ,Correct Answer:- B

### **Explanation:**-

C reaches B's position & A reaches D's position. B reaches A's position and D reaches C's position. Hence C is now at north-west corner.

## QNo:- 31 ,Correct Answer:- D

### **Explanation:**-

It seems to be from the situation that the crossing was not manned; in such a scenario it is the fault of both the driver and the railway authorities. There is no fault of the train driver.

## QNo:- 32 ,Correct Answer:- C

### **Explanation:**-

Statement Three does not follow because it would be excessively harsh on the part of the authorities to arrest someone merely on the grounds of a dubious past.

## QNo:- 33 ,Correct Answer:- B

### **Explanation:**-

All three would help in the given situation. Third course of action is also right as it will help aothorities in handling the situation in advance.

## QNo:- 34 ,Correct Answer:- A

### **Explanation:-**

All the mentioned courses of action would go towards minimizing the potentially devastating effects of a flood. Hence 1.

### QNo:- 35 ,Correct Answer:- D

### **Explanation:**-

Research is required to meet the demands. Second is not very logical because if the rice production can be increased then their is no need of such a thing.. Help from other countries to be taken to meet the growing demand

### QNo:- 36 ,Correct Answer:- A

### **Explanation:**-

Knowledge has definitely increased as per the second line of the passage.

### QNo:- 37 ,Correct Answer:- D

### **Explanation:**-

The space probes do not deal with the upper atmosphere of the earth only.

## QNo:- 38 ,Correct Answer:- A

### **Explanation:**-

It is mentioned in the last few lines of the pasage.

### QNo:- 39 ,Correct Answer:- C

### **Explanation:**-

Latest scientific instruments on board could also include computers.

## QNo:- 40 ,Correct Answer:- C

#### **Explanation:**-We cannot ascertain whether those who landed on moon did explore it but nevertheless it does seem to be plausible.

### QNo:- 41 ,Correct Answer:- B

### **Explanation:**-

Refer to the last sentence of the third paragraph "A simple and cost-effective methodology for real-time reporting of data is the cellular-based GPRS technology, which has been recently implemented at the NIO for real-time reporting of coastal sea level data."

### QNo:- 42 ,Correct Answer:- B

### **Explanation:**-

*Refer to the second sentence of the 2<sup>nd</sup> paragraph where the answer has been clearly mentioned that the cylinderical protective housing is held WITHIN a mechanical structure. This suggests that mechanical structure is outer.* 

## QNo:- 43 ,Correct Answer:- C

### **Explanation:**-

Refer to the middle portion of the last paragraph "Communication via VHF/UHF transceivers is limited by line-of-sight distance between transceivers and normally offer only point-to-point data transfer. Satellite communication via platform transmit

terminals (PTTs) has wide coverage and, therefore, allows data reception from offshore platforms. However, **data transfer speeds are limited**. Further, many satellites (for example, GOES, INSAT) permit data transfer only at predefined time-slots, thereby inhibiting continuous data access."

# QNo:- 44 ,Correct Answer:- B

# **Explanation:**-

Refer to the last sentence of the second paragraph. The residual sea level(that is, the measured minus the predicted sea level).

## QNo:- 45 ,Correct Answer:- D

## **Explanation:**-

*Refer to later part (18th last line) of the 2<sup>nd</sup> paragraph wherein all the three have been explicitly mentioned (the flexibilities provided by the July framework.......done away with.)* 

## QNo:- 46 ,Correct Answer:- D

# **Explanation:**-

By elimination. Option A,B & C have been clearly mentioned, whereas option D has been stated otherwise.

# QNo:- 47 ,Correct Answer:- A

# **Explanation:**-

Fact based question. Sentence starting with, "This claim is questionable...." 16 th line of paragarph 2 is preceded by option A.

# QNo:- 48 ,Correct Answer:- D

## **Explanation:**-

Once again all options find explicit mention in the 1<sup>st</sup> paragraph.

## QNo:- 49 ,Correct Answer:- C

## **Explanation:**-

Refer to the beginning (10th line of the passage)..."Marx was no Faustian...."

# **QNo:- 50 ,Correct Answer:-** C

## **Explanation:**-

Refer to the sentence "Durkheim, like Marx, conceived of science as ..." stated in the middle of the passage.

## QNo:- 51 ,Correct Answer:- A

**Explanation:-**By elimination of options B, C & D as all others can be inferred from the passage...except A

## QNo:- 52 ,Correct Answer:- D

## **Explanation:**-

Although option A and D seem close but D is a more comprehensive answer if one refers to the latter part of the paragraph and the sentence beginning thus, "Durkheim like Marx...".

# **Explanation:**-

*Refer to the first sentence of the 1<sup>st</sup> paragraph for an unambiguous answer.* 

# QNo:- 54 ,Correct Answer:- A

## **Explanation:**-

Refer to the 9th sentence of second paragraph beginning with "On the side of labour....." in the 2<sup>nd</sup> paragraph

## QNo:- 55 ,Correct Answer:- C

## **Explanation:**-

Refer to the sentence beginning with "On the side of business....." in the 2<sup>nd</sup> paragraph

## QNo:- 56 ,Correct Answer:- A

## **Explanation:**-

It is clearly mentioned in the middle of the 2<sup>nd</sup> paragraph with the sentence beginning thus, "The demand of labour is derived.....".

## QNo:- 57 ,Correct Answer:- A

## **Explanation:**-

After reading the sentence, the word that completes the sense should mean " to arise or originate". The option which conveys the meaning is A and also 'necessary ingredients' means society is sure that these are sure to help in growth and economy.

### QNo:- 58 ,Correct Answer:- D

## **Explanation:**-

Population explosion 'compounds with/adds' to the problem of housing therefore option D is the correct answer. Any problem will not manifest itself from the 'policy', which is meant to solve the problems, therefore option 3 rejected. 'dispense'(to do away/to get rid) will not go with the sense of the sentence as 'problem of housing shoratge is not going to solve the problem of 'population explosion' instead it will make the situation worse. Therefore option 2 is rejected. 'Sick' in the option 5 is not going to make the sense here as 'policy' is not going to cause harm instead it has been made to address the issues , hence option 5 rejected. 'policy' is not going to 'discuss'' the matters therefore option 1 is also rejected.

## QNo:- 59 ,Correct Answer:- B

## **Explanation:**-

The term that completes the sense is "interaction" as the clue words in the statement is "individuals and the organization". hence the option 2 is the best.

'sophistication' will not make any sense here therefore option 4 rejected. therte cannot be 'life' between individuals and organizations therefore option 1 rejected. 'Awe' is out of context terefore option 5 is rejected. The quality of service cannot be 'dumped' therefore option 3 rejected.

## QNo:- 60 ,Correct Answer:- C

## **Explanation:**-

The context says that 'handicrafts' are an important 'part' of the economy and it helps in 'providing' employment to over six million people. Therefore option 3 is the best. 'Handicrafts' cannot be the 'period'/'factors'.'extension' therefore option 1,2 and 4 rejected.'hadicrafts' cannot 'gyrate' or rotate/move in circle therefore will not go well with the context, hence option 5 rejected.

## QNo:- 61 ,Correct Answer:- B

## **Explanation:**-

Option B suggests that the manager would like the subject if the latter were to help in locating the fault-this is contrary to the idea

## QNo:- 62 ,Correct Answer:- D

### **Explanation:**-

All the sentences have different meanings.

#### QNo:- 63 ,Correct Answer:- D

### Explanation:-

all the sentences convey different sense.

### QNo:- 64 ,Correct Answer:- D

### Explanation:-

All the three statements mean the same.

### QNo:- 65 ,Correct Answer:- A

### **Explanation:**-

B and D are synonyms and they both 'isolated'.

### QNo:- 66 ,Correct Answer:- A

## **Explanation:**-

B and D are antonyms.'Largesse' means generous bestowal of gifts,'meanness' means the state or quality of being mean.

## **QNo:- 67 ,Correct Answer:-** B

*Explanation:- A and C are antonyms.* 

### QNo:- 68 ,Correct Answer:- B

**Explanation:-**A and D are synonyms.

## QNo:- 69 ,Correct Answer:- C

### **Explanation:**-

Similar ideas/parts of the sentence should be phrased in similar form (structural form). Here, with 'say' in the first part,'do' goes as the tense has to be same. Also to make the sentence parallel the infinitive 'to say' should be parallel with infinitive 'to do'.

### QNo:- 70 ,Correct Answer:- A

### **Explanation:**-

"Arriving there for inaguration....."on is a participle i.e. an adjective. This adjective is being used for 'he' in the statement and hence it should have been placed immediately with 'he', which cannot be done. That's why this participle should be converted into a sentence, which is happening in options 1 and 4. Option 1 is better as 'there' is the correct pronoun for Newyork.

## **Explanation:**-

The word that comes before "who" is plural, in this case it is "people" therefore the verb will be plural. Keeping this in mind the correct option is A or B. But the use of 'was' in A makes it correct as we require a past tense.

# QNo:- 72 ,Correct Answer:- A

## **Explanation:**-

The word rise has to be mentioned for clarifying it as this would lead to the ambiguous use of the pronoun. So out of all the given options A is correct as option D is not concise and C does not carry any counter indicator as 'eventhough' in option A.

## QNo:- 73 ,Correct Answer:- C

## **Explanation:**-

The contents of the paragraph read in totality point to option C. It is mentioned in the lines "This will help......the use of drugs." which corresponds to the statement.

### QNo:- 74 ,Correct Answer:- A

## **Explanation:**-

The fact that a school is the most important means implies that certain other means must exist as well-hence A.

## QNo:- 75 ,Correct Answer:- A

### **Explanation:-**

The passage clearly illustrates how it is technology that has become a critical factor in the allocation of social status to individuals.

## **QNo:- 76 ,Correct Answer:-** B

### **Explanation:**-

"Managers to work more with people....." says it all.

## QNo:- 77 ,Correct Answer:- D

### **Explanation:**-

The introductory statement is in the form of a question(D), therefore the next sentence will be an answer, which is mentioned in sentence (B). The word "it" in sentence A is refers to "water", therefore A follows B and the concluding sentence is C.

## QNo:- 78 ,Correct Answer:- D

### **Explanation:**-

*D* is clearly the opening sentence, the idea being discussed is "training and development". The word "it" in sentence "C" refers to "task" in sentence A, therefore AC is a pair.

## QNo:- 79 ,Correct Answer:- D

## **Explanation:**-

D is the opening sentence. B follows D as the word "they" in sentence B refers to "Aryans" in sentence D. AC are connected.

## QNo:- 80 ,Correct Answer:- B

## **Explanation:**-

*B* is the opening sentence. AD are connected with D follows A (reference to skilled workforce). The last sentence is elaborating the idea mentioned in sentence D (demands).

## QNo:- 81 ,Correct Answer:- C

# **Explanation:**-

Each man can vote for one of the 4 candidates and this can be done in 4 ways. Similar is the case with every man. (Repetition is allowed) Hence, 5 men can vote in 4<sup>5</sup> i.e., 1024 ways

# QNo:- 82 ,Correct Answer:- A

# **Explanation:**-

*Firstly men can be seated in (6-1)! = 5! Ways. Now 6 women can be seated in 6! Ways. Thus, total ways = 5! x 6!* 

# QNo:- 83 ,Correct Answer:- C

# **Explanation:**-

From the first 5 Q's 4 are to be selected which can be done in  ${}^{5}C_{4}$  ways and rest 6 from 8 in  ${}^{8}C_{6}$  ways or selecting first 5 questions in  ${}^{5}C_{5}$  ways and rest 5 from 8 in  ${}^{8}C_{5}$  ways. Hence, required answer is:  ${}^{5}C_{4} \times {}^{8}C_{6} + {}^{5}C_{5} \times {}^{8}C_{5}$ = 5 × (8 × 7/2) + 1 × [(8 ×7 ×6)/(3×2×1)] = 140 + 56 = 196

# QNo:- 84 ,Correct Answer:- C

# **Explanation:-**

Apply sum formula for AP we get, 250 = (n/2) [2x7 + (n - 1)(3/12)].

 $\Rightarrow 250x8 = n[56 + (n - 1)] \Rightarrow 2000 = 56n + n^2 - n$ 

 $n^2 + 55n - 2000 = 0 \Rightarrow (n + 80)(n - 25) = 0$ . Solving this we get, n = -80, which is not possible and n = 25, which is the correct

## answer.

# QNo:- 85 ,Correct Answer:- A

## **Explanation:**-

Comparing volumes of cubes we get,  $12^3 = 6^3 + 8^3 + x^3$ . Solving, we get x = 10.

# QNo:- 86 ,Correct Answer:- B

## **Explanation:**-

Surface Area =  $2\pi rh = 2 * (22/7) * 3.5 * 22.5 = 495 m^2$ Thus, total cost of plastering the surface = Surface Area X Rate per unit area = 495 X Rs.3 = Rs. 1485/-.

# QNo:- 87 ,Correct Answer:- C

**Explanation:**-Volume of water flown out through the pipe = Volume of cylindrical tank filled Thus,  $\pi r^2 X$  Rate of flow X Time =  $\pi r^2 h$   $\Rightarrow \pi (1)^2 \cdot 6 \cdot (30x60 \text{ sec}) = \pi \cdot (60)^2 \cdot h \Rightarrow h = 3 \text{ m} \dots$  Therefore, the level of water in tank will rise by 3 m in 30 minutes.

## QNo:- 88 ,Correct Answer:- B

### **Explanation:**-

When height is 9 m and ladder is 15 m long, then using Pythagorean triplet (3,4,5) we get base as 12m. When ladder is placed 12 m high keeping foot at the same point then base from other side becomes 9 m (again using Pythagorean Triplet of 3, 4, 5). So required width of the street = 12 + 9 = 21 m.

### QNo:- 89 ,Correct Answer:- A

### **Explanation:**-

Horizontal distance between the trees = 60m

Thus,  $\tan 45^\circ$  = Perpendiculur/Base  $\Rightarrow 1 = P/60 \Rightarrow P = 60m$ . Therefore, height of the first tree = 80 - 60 = 20 m.

## QNo:- 90 ,Correct Answer:- C

### **Explanation:**-

3 ladies out of 8 can be selected in  ${}^{8}C_{3}$  ways and 4 gentlemen out of 7 in  ${}^{7}C_{4}$  ways. Now each way of selecting 3 ladies is associated with each way of selecting 4 gentlemen. Hence the required number of ways =  ${}^{8}C_{3}*{}^{7}C_{4}=56*35=1960$ . We now find the no. of committees of 3 ladies and 4 gentlemen in which both Mrs. X and Mr. Y are members. In this case, we can select 2 other ladies from the remaining 7 in  ${}^{7}C_{2}$  ways and 3 other gentlemen from the remaining 6 in  ${}^{6}C_{3}$  ways The no. of ways in which both Mrs. X and Mr. Y are always included =  ${}^{7}C_{2}*{}^{6}C_{3}=21*20=420$ . Hence the required no. of committees in which Mrs. X and Mr. Y do not serve together = 1960 - 420 = 1540.

## QNo:- 91 ,Correct Answer:- A

## **Explanation:**-

For the plane moving at a height of 300 m,  $\tan 60^{\circ} = 300/Base$ 

 $\Rightarrow$  Base = 300/ $\sqrt{3}$  = 100 $\sqrt{3}$ 

Similarly, for a plane moving at an unknown height (below the 1st plane),  $tan45^{\circ} = P/100\sqrt{3}$ 

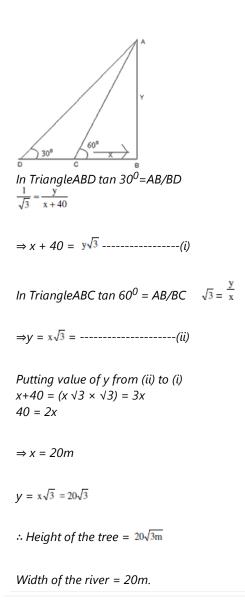
 $\Rightarrow P = 100\sqrt{3} X 1 = 100\sqrt{3}m.$ 

Thus, the height of the second plane above the ground =  $100\sqrt{3}$  m.

## QNo:- 92 ,Correct Answer:- B

# Explanation:-

Let height of the tree be y and width of the river be x. CD = 40m



# QNo:- 93 ,Correct Answer:- A

**Explanation:**-P (all 3 lights are bad i.e no light)= ${}^{6}C_{3}/{}^{10}C_{3}=1/6$ . So P (when there is light) = 1 - 1/6 = 5/6.

## QNo:- 94 ,Correct Answer:- A

## **Explanation:**-

When there is 1 woman  $P={}^{5}C_{1} \times {}^{8}C_{1} / {}^{13}C_{2}$  and when there are 2 woman  $P={}^{5}C_{2} / {}^{13}C_{2}$ . Hence add the two cases and get the ans. as 25/39. Alternatively, Required Probability = 1 - P(No woman is selected) = 1 -  ${}^{8}C_{2} / {}^{13}C_{2}$ = 25/39

## QNo:- 95 ,Correct Answer:- A

### **Explanation:**-

P (Failure of electronic component) = 1/10; Thus, P (Not Failure) = 9/10. Hence, P (Overall not Failure) =  $0.9 \times 0.99 = 0.891$ .

## QNo:- 97 ,Correct Answer:- C

## **Explanation:**-

Area of the drain =(240+20) \* (180+20) - (240 \* 180) = 8800. Now Volume dug out = Volume Spread. Hence, 240 x 180 x 0.25 = 8800 x h, gives h=1.227 m.

### QNo:- 98 ,Correct Answer:- B

### **Explanation:**-

Volume to be filled = Volume flowed from aperture i.e.  $225 \times 162 \times 20/100 = (60 \times 45)/(100 \times 100) \times 5 \times 5$  peed Gives Speed = 5400 m/hr.

### QNo:- 99 ,Correct Answer:- A

### **Explanation:**-

Total surface area of the iron pipe = Outside Surface Area + Inside Surface Area =  $2\pi h(R + r) = 2 \times 3.14 \times 20 \times (12.5 + 11.5) = 3014.4 \text{ cm}^2$ 

### QNo:- 100 ,Correct Answer:- D

### **Explanation:**-

Let the units of work be 42 units. So A's One day's work = 42/14 = 3 units and B's One day's work = 42/21 = 2 units. So last 3 day's Only B worked, so work finished in last 3 days = 3 × 2 = 6 units and remaining work = 42 - 6 = 36 units will be completed in 36/(3+2) = 7 1/5 days. Hence total days required = 3 + 7 1/5 days = 10 1/5 days.

### QNo:- 101 ,Correct Answer:- A

### **Explanation:**-

Distance covered by B in 6 sec  $(5min - 4min. 54sec) = 1000/300 \times 6 = 20$  meters. So A beats B by 20meters. Hence he can give a start of 20 meters for a dead heat.

## **QNo:-** 102 ,Correct Answer:- B

### **Explanation:**-

Overall average marks = Total marks / student =  $(40 \times 50 + 35 \times 60 + 45 \times 55 + 42 \times 45)/(40 + 35 + 45 + 42)$ = (2000 + 2100 + 2475 + 1890)/162 = 8465/162 = 52.25

### QNo:- 103 ,Correct Answer:- C

## **Explanation:**-

Let no. of boys be = b and no. of girls = g. Hence (71b + 73g)/(b + g) = 71.8

 $\Rightarrow 71b + 73g = 71.8b + 71.8g \Rightarrow 0.8b = 1.2g \Rightarrow b : g = 1.2 : 0.8 = 3 : 2$ 

### QNo:- 104 ,Correct Answer:- D

### **Explanation:**-

Total cost price of 25 products =  $25 \times 1200$  = Rs. 30,000 If all the 10 products, each of them sold for Rs. 420 (i.e., less than Rs. 1000), then selling price of 10 products =  $10 \times 420$  = Rs. 4,200

 $\therefore$  Selling price of the remaining 15 products = 30,000-4,200 = Rs. 25,800

If 14 products were sold at the rate of Rs. 1000 each, then the selling price of the 14 products will be  $=14 \times 1000 = \text{Rs}$ . 14,000

 $\therefore$  Greatest possible S.P. of the most expensive product = 25,800-14,000 = Rs. 11,800.

### QNo:- 105 ,Correct Answer:- D

### **Explanation:**-

Let x litres of water is drained from the sink. 12-x = x-6

 $\Rightarrow 2x = 12 + 6$ 

 $\therefore x = 18/2 = 9$  litres

### QNo:- 106 ,Correct Answer:- A

### **Explanation:**-

Quantity of acid in original solution =  $10 \times 10/100$ = 1 litre If x litres of water is added, then quantity of water in new solution = (9 + x) litres and total quantity of the new solution = (10 + x)litres

 $(10 + x) \times 4/100 = 1$ 

 $\Rightarrow x = 25-10 = 15$  litres

## QNo:- 107 ,Correct Answer:- C

### **Explanation:**-

Let the number of ball bearings received in the first shipment be x.

```
\therefore Number of ball bearings received in the second shipment = 2x
```

As per question, x ×1/100 + 2x ×4.5/100 = 100

 $\Rightarrow x+9x = 100 \times 100$ 

 $\Rightarrow 10x = 10000$ 

∴ *x* = 1000

### QNo:- 108 ,Correct Answer:- C

### **Explanation:**-

If 5 colors were taken, then number of color codes =  $5 + {}^{5}C_{2}$  (single) (unique 2-color pair) = 5+10 = 15Hence, by using five different colors, only 15 chemicals are identified. If 6 different colors were taken, then number of color codes =  $6 + {}^{6}C_{2} = 6+15 = 21$ 

: By 6 different colors, 21 chemicals can be identified.

Hence, Minimum number of different colors required to code 20 chemical is 6

### QNo:- 109 ,Correct Answer:- B

### **Explanation:**-

No of litrate persons in the population =  $296000 \times 50/100 = 148000$ 

 $\Rightarrow$  No. of litrate males in the population = 166000 × 70/100 = 116200

 $\therefore$  No. of litrate women in the population = 148000-116200 = 31800

### QNo:- 110 ,Correct Answer:- D

### **Explanation:**-

Distance covered by 1st train in 1 hr = 180/4 = 45km. Distance covered by 1lnd train in 1 hr = 180/(4 - 1) = 180/3 = 60 km. Hence difference in distance covered by two trains = 60 - 45 = 15km. So, the correct answer is option D.

# QNo:- 111 ,Correct Answer:- A

# **Explanation:**-

Relative speed downwards is 6 km and upwards is 2 km. Let x be the distance between the points.  $x/6 + x/2 = 6 \Rightarrow x = 9$ . **Explanation:**-Relative speed = 4+3 = 7 km/hr.

Initial Distance = 17.5km

 $\Rightarrow$  Required Time = 17.5/7 = 2.5 hours

 $\therefore$  Time of meeting = 12:30 pm

QNo:- 113 ,Correct Answer:- C

### **Explanation:**-

Let CP = 100, MP = 135. Thus SP = 90% of 135 = 121.5. Hence P% = 21.5%

QNo:- 114 ,Correct Answer:- B

# **Explanation:**-

In 20 hrs, B can do 1 unit work and thus in 20 hrs, A can do 3/2th of the work Combined 1 hour work  $1/20 + (3/2) \times (1/20) = 5/40 = 1/8$ Thus, A and B can finish the same work in 8 hrs.

# QNo:- 115 ,Correct Answer:- C

**Explanation:**-

Let 4A = 6B = 11C = k. Now A : B : C = k/4 : k/6 : k/11 = 66 : 44 : 24 = 33 : 22 : 12.

# QNo:- 116 ,Correct Answer:- B

**Explanation:-**Total distance it covers is 650 mts. Relative speed = D / T

Thus, Distance, D =  $650/1000 = (53 - S) \times 3/60 \Rightarrow 53 - S = 13 \Rightarrow S = 40 \text{ km/hr}$ 

# QNo:- 117 ,Correct Answer:- D

**Explanation:**-

Let the total students = T. Number of students in each row = x, Number of rows = y T = xy; T = (x+4)(y-2); and T = (x-4)(y+4). Solving them simultaneously, we get, x = 12 and y = 8. Hence, number of students =  $12 \times 8 = 96$ .

# QNo:- 118 ,Correct Answer:- C

**Explanation:**-Let the constant part be Rs. C Then, as per question 1000 = 250m+C......(1) and 980 = 240m+C ----(2)  $\therefore 10m = 20$ 

 $\Rightarrow m = 2$ 

and C = 1000-250 × 2 = Rs. 500

: When the cost of wheat is Rs. 350 a quintal, then Monthly expenses of the family =  $350 \times 2+500 = Rs. 1200$ .

### QNo:- 119 ,Correct Answer:- D

**Explanation:**-Let the usual speed of the plane be x km/hour. Then, as per question-1500 1500  $\frac{1500}{(x+250)} + \frac{1}{2}$ ÷ = x 1500 3000 + x + 250= x  $2 \times (x + 250)$  $\Rightarrow$  3000 x + 750000  $= 3250x + x^2$  $\Rightarrow x^2+250x-750000=0$  $\Rightarrow$  (x - 750) (x + 1000) = 0 x = 750 km/hour. ...

QNo:- 120 ,Correct Answer:- C

### **Explanation:**-

As per question, Length of the box =  $48-2 \times 8 = 32$ cm Breadth of the box = 36-16 = 20 cm Depth of the box = 8cm

:. Volume of the box =  $32 \times 20 \times 8 = 5120 \text{ cm}^3$ 

QNo:- 121 ,Correct Answer:- C

**Explanation:**-

QNo:- 122 ,Correct Answer:- A

**Explanation:**-

QNo:- 123 ,Correct Answer:- C

**Explanation:**-

QNo:- 124 ,Correct Answer:- D

**Explanation:**-

# **QNo:- 125 ,Correct Answer:-** C

**Explanation:**-

QNo:- 126 ,Correct Answer:- C

**Explanation:**-

QNo:- 127 ,Correct Answer:- B

**Explanation:**-

QNo:- 128 ,Correct Answer:- A

**Explanation:**-

QNo:- 129 ,Correct Answer:- A

**Explanation:**-

QNo:- 130 ,Correct Answer:- A

**Explanation:**-

QNo:- 131 ,Correct Answer:- A

**Explanation:**-

QNo:- 132 ,Correct Answer:- A

**Explanation:**-

QNo:- 133 ,Correct Answer:- A

**Explanation:**-

QNo:- 134 ,Correct Answer:- A

**Explanation:**-

QNo:- 135 ,Correct Answer:- B

**Explanation:**-

QNo:- 136 ,Correct Answer:- B

**Explanation:**-

QNo:- 137 ,Correct Answer:- A

**Explanation:**-

QNo:- 138 ,Correct Answer:- A **Explanation:**-QNo:- 139 ,Correct Answer:- B **Explanation:**-QNo:- 140 ,Correct Answer:- C **Explanation:**-QNo:- 141 ,Correct Answer:- C **Explanation:**-QNo:- 142 ,Correct Answer:- D **Explanation:**-QNo:- 143 ,Correct Answer:- A **Explanation:**-QNo:- 144 ,Correct Answer:- A **Explanation:**-QNo:- 145 ,Correct Answer:- D **Explanation:**-QNo:- 146 ,Correct Answer:- C **Explanation:**-QNo:- 147 ,Correct Answer:- B **Explanation:-**QNo:- 148 ,Correct Answer:- D **Explanation:**-QNo:- 149 ,Correct Answer:- C

**Explanation:**-

### QNo:- 150 ,Correct Answer:- A

**Explanation:**-

QNo:- 151 ,Correct Answer:- B

**Explanation:**-

QNo:- 152 ,Correct Answer:- C

**Explanation:**-

QNo:- 153 ,Correct Answer:- C

**Explanation:**-

QNo:- 154 ,Correct Answer:- A

**Explanation:**-

QNo:- 155 ,Correct Answer:- B

**Explanation:**-

QNo:- 156 ,Correct Answer:- C

**Explanation:**-

QNo:- 157 ,Correct Answer:- B

**Explanation:**-

QNo:- 158 ,Correct Answer:- C

**Explanation:**-

QNo:- 159 ,Correct Answer:- C

**Explanation:**-

QNo:- 160 ,Correct Answer:- B

**Explanation:**-

# QNo:- 161 ,Correct Answer:- B

#### **Explanation:**-

From statement A, we have no information about the breadth of rectangles, so it is not sufficient. From statement B, If area of first rectangle is twice than that of second then it is not necessary that perimeter of first rectangle is more than the second. If we combine both statements then we can say that if length of first rectangle is twice that of second and area of first is twice that of

second then their breadths will be same, so perimeter of first rectangle will be more than the second.

QNo:- 162 ,Correct Answer:- C

# Explanation:-Statement A is superfluous.

Statement B: It gives speed of reading i.e. (30 × 10) words per minute which is sufficient to calculate no. of pages. In 60 min, Michael can read 60 × 300 = 18000 words. And hence, 18000/250 = 72 pages. Therefore, statement B by itself is sufficient to answer the question, but statement A by itself is not.

### QNo:- 163 ,Correct Answer:- D

### **Explanation:**-

Both statements are individually sufficient.

Average Speed = Total Distance / Total Time.

'**Statement A**' gives Total distance = 120 miles

Total Time = 3 Hrs.

So Avg. Speed = 120 / 3 = 40 miles/hr.

'**Statement B**' gives total distance. Let total distance = x

x/2 is covered at 30 miles/Hr.

x/2 is covered at 60 miles/Hr.

 $\frac{\frac{x}{2}}{\frac{2}{30}} + \frac{\frac{x}{2}}{\frac{2}{60}} = 3$ 

=>x = 120 miles

So, Avg. Speed = 120 / 3 = 40 miles/hr. Therefore, either statement by itself is sufficient to answer the question.

# QNo:- 164 ,Correct Answer:- D

# **Explanation:**-

The ratio of carpenter to painter is given i.e. 3:2. Let the total crew is 100. Now statement A says that 18% are carpenters i.e. 18 are carpenters, so 12 persons will be painters. Hence 30 people will be either carpenters or painters. Similarly statement B is sufficient.

# QNo:- 165 ,Correct Answer:- C

### **Explanation:**-

Statement A provides information regarding % age of population aged at least 30, which is not needed to answer the question. Statement B clearly mentions that of those aged 30 or above; 18% women and 17% men are bilingual. So from second statement alone, we can say without calculating that their combined percentage will be between 17 & 18%. From the second statement the question can be answered as 'NO'.

# QNo:- 166 ,Correct Answer:- B

**Explanation:-**Both '1' and '3' witness an increase as a proportion to total. Whereas 'Nuclear' dips in 2020 for Asia.

# QNo:- 167 ,Correct Answer:- C

**Explanation:-**

Petroleum in 2005 = 8/19 \* 100 = 42.10%, in 2010 = 1.5/34 \* 100 = 4.41% Solid Fuels in 2005 = 6/19 \* 100 = 31.6%, in 2010 = 13/34 \* 100 = 38.24% Natural gas in 2005 = 1.5 / 19 \* 100 = 7.8%, in 2010 = 2.5 / 34 \* 100 = 7.4% Nuclear in 2005 = 2/19 \* 100 = 10.52%, in 2010 = 5.5/48 \* 100 = 11.46%. Hence, required answer is option C, i.e. Natural Gas.

### QNo:- 168 ,Correct Answer:- D

### **Explanation:**-

Natural Gas = 4.5/1.5 = 3Nuclear = 5.5/2.0 = 2.75Solid Fuels = 15.4/6.0 = 2.56Hydropower is highest = 4.6 / 1.5 = 3.06. Hence, required answer is Hydropower.

### QNo:- 169 ,Correct Answer:- C

#### **Explanation:-**

Solid fuels and Hydropower both show a continuous decrease.

### QNo:- 170 ,Correct Answer:- D

#### **Explanation:**-

No need to compute actual % age. A cursory glance through the figures shows that none of these is the answer.

### QNo:- 171 ,Correct Answer:- D

### **Explanation:**-

We can see from the graph that the production of cars was not more than the 50% of the total production in any of the years.

### QNo:- 172 ,Correct Answer:- C

### **Explanation:**-

Motorbike = 600000 × .2 = 120000 Scooter = 480000 × .12 = 57600 Car = 400000 × .1 = 40000 Total = 120000 + 57600 + 40000 = 217600

### QNo:- 173 ,Correct Answer:- C

# **Explanation:**-

The required ratio is Cars : Scooter : Motorbike (0.42) (38) : (0.28) (48) : (.35) (60) = 19:16:25

# QNo:- 174 ,Correct Answer:- A

### **Explanation:**-

Cars exported in 1998 =  $.25 \times 84 = 21$ Scooters exported in 1998 =  $.3 \times 75 = 22.5$ Motorbike exported in 1998 =  $.4 \times 60 = 24$ Ratio of prices of Cars : Scooters : Motorbike is 2: 1: 1.5 Export earning ratio is 21\*2 : 1\*22.5 : 1.5\*24

# QNo:- 175 ,Correct Answer:- C

### **Explanation:**-

In the year 1999, the required % age is 60/148 = 40% (approx.)

### **QNo:- 176**, Correct Answer:- D

# **Explanation:**-

Since lot of comparision of figures is required, let us create a chart from the graph.

City	Train	cars	Bus	total
Pune(2000)	1500	250	250	
Kanpur(4000)	2000	1600	400	
Raisen(6000)	3000	750	2250	
Surat(3000)	750	1500	750	
Trivandrum(8000)	1600	2400	4000	
Total	8850	6700	7650	

Hence answer is Pune.

# QNo:- 177 ,Correct Answer:- D

### **Explanation:**-

Since lot of comparision of figures is required, let us create a chart from the graph.					
City	Train	cars	Bus	total	
Pune(2000)	1500	250	250		
Kanpur(4000)	2000	1600	400		
Raisen(6000)	3000	750	2250		
Surat(3000)	750	1500	750		
Trivandrum(8000)	1600	2400	4000		
Total	8850	6700	7650		

Average is (1500 + 2000 + 3000 + 1600)/4 = 2025.

# QNo:- 178 ,Correct Answer:- C

# **Explanation:**-

Cinco lot of comparision	of figures is required	lot us croate a chart from the graph
- Since lot of comparision	i or nuures is reuureu.	let us create a chart from the graph.
		in the second of the second

City	Train	cars	Bus	total
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Kanpur(4000)	2000	1600	400	
Raisen(6000)	3000	750	2250	
Surat(3000)	750	1500	750	
Trivandrum(8000)	1600	2400	4000	
Total	8850	6700	7650	

Hence mode of transport used by the least number of persons in all the given cities is Cars.

# QNo:- 179 ,Correct Answer:- C

### **Explanation:**-

By observation (only two cities are below 25% mark) for cars. And for the remaining cities these are above 30%. Thus answer is Pune and Raisen.

### QNo:- 180 ,Correct Answer:- B

### **Explanation:**-

By observation in Trivendrum less than 50% use cars.

### QNo:- 181 ,Correct Answer:- A

### **Explanation:**-

Total votes polled to other parties = 11% of 5 crore = 5500000 The seats won by others = 5. Hence average votes per seat = 5500000/5 = 1100000

### QNo:- 182 ,Correct Answer:- B

### **Explanation:**-

BJP in 1995 got 121 Seats BJP in 1990 got 67 Seats.

### QNo:- 183 ,Correct Answer:- A

### **Explanation:**-

1998 BJP got 44.8% or 2.24 Crore valid votes
Total valid votes in 1998 = 2.24/0.448 = 5 Crore
1990 Congress got 1.228 Crore votes equal to 30.7% of the total.
Total valid votes in 1990 = 1.228 / 0.307 = 4 Crore
Votes in 1990 are less by 1 crore than in 1998. or 1/5 = 20%

# QNo:- 184 ,Correct Answer:- D

# **Explanation:-**In 2002, BJP got 125 out of 182, which is more than 2/3rd or 66 2/3%.

# QNo:- 185 ,Correct Answer:- D

**Explanation:-**Total number of valid votes is not known. So cannot be determined.

# QNo:- 186 ,Correct Answer:- B

# **Explanation:**-

Here, we have to check for the given options. Number of workers in category P in 1998 = 13% of 2000 = 260 Number of workers in category P in 2000 = 11% of 2400 = 264 Number of workers in category S in 1998 = 24% of 2000 = 480 Number of workers in category S in 2000 = 20% of 2400 = 480 Therefore, the number of workers is same in both the years for category S.

# QNo:- 187 ,Correct Answer:- C

# **Explanation:**-

number of workers in category U in 1998 = 8% of 2000 = 160 number of workers in category U in 2000 = 10% of 2400 = 240 %age Increase = (80×100)/160 = 50%

Hence option C.

# QNo:- 188 ,Correct Answer:- C

# **Explanation:**-

```
For year 1998,
```

Number of workers in category P in 1998 = 13% of 2000 = 260 Number of workers in category Q in 1998 = 18% of 2000 = 360 Number of workers in category R in 1998 = 15% of 2000 = 300 Number of workers in category S in 1998 = 24% of 2000 = 480 Number of workers in category T in 1998 = 22% of 2000 = 440 Number of workers in category U in 1998 = 8% of 2000 = 160 Now, for year 2000, Number of workers in category P in 2000 = 11% of 2400 = 264 Number of workers in category Q in 2000 = 25% of 2400 = 600 Number of workers in category R in 2000 = 16% of 2400 = 384 Number of workers in category S in 2000 = 20% of 2400 = 480 Number of workers in category T in 2000 = 18% of 2400 = 432 Number of workers in category U in 2000 = 10% of 2400 = 240 So, the required increase is (4 for P) + (240 for Q) + (84 for R) + (80 for U) = 408

Hence option C.

# QNo:- 189 ,Correct Answer:- D

# **Explanation:**-

For year 1998, Number of workers in category P in 1998 = 13% of 2000 = 260 Number of workers in category Q in 1998 = 18% of 2000 = 360 Number of workers in category R in 1998 = 15% of 2000 = 300 Number of workers in category S in 1998 = 24% of 2000 = 480 Number of workers in category T in 1998 = 22% of 2000 = 440 Number of workers in category U in 1998 = 8% of 2000 = 160 Now, for year 2000, Number of workers in category P in 2000 = 11% of 2400 = 264 Number of workers in category Q in 2000 = 25% of 2400 = 600 Number of workers in category R in 2000 = 16% of 2400 = 384 Number of workers in category S in 2000 = 20% of 2400 = 480 Number of workers in category T in 2000 = 18% of 2400 = 432 Number of workers in category U in 2000 = 10% of 2400 = 240 Clearly, category T has shown a decrease in the number of workers from 440(in 1998) to 432(in 2000).

So option D.

# QNo:- 190 ,Correct Answer:- A

So, number of workers =  $(0.21) \times 2000 = 420$ For 2000, take two categories with max. %age share i.e. 25 + 20 = 45So, number of workers =  $(0.45) \times 2400 = 1080$ Therefore,the required difference is 1080 - 420 = 660

Hence option A.

### QNo:- 191 ,Correct Answer:- A

### **Explanation:**-

1998 : (40+45+60+70) = 215 / 4 = 53.75 1999 : (35+55+75+80) = 245 / 4 = 61.25 2000 : (35+60+65+90) = 250 / 4 = 62.50

Now the average of the three is (53.75+61.25+62.5) / 3 = 59.11 or 59 (Approx)

#### QNo:- 192 ,Correct Answer:- D

### **Explanation:**-

Sapphire has performed best as we can see from the graph that passing students of other houses are not increasing continuously but students of Sapphire is showing continuous increase over the given years.

### QNo:- 193 ,Correct Answer:- B

### **Explanation:**-

Visually, it can be observed that change in the results is maximum for Pearl Section in year 1999 over the previous year. Now, Students passing the exam from Pearl section in 1998 = 45 and in 1999 = 75. So, %age increase = (30/45) × 100 = 66.6%. This is highest in any category. So, the correct answer is option B.

### QNo:- 194 ,Correct Answer:- D

### **Explanation:**-

On 2000

- 1) Ruby remained unchanged w.r.t.1999. So in 2001 same = 35
- 2) Pearl fell from 75 to 65, a decrease of 13.33%. So in 2001 = 56.
- 3) Sapphire increased from 80 to 90=10/80 =12.5% increase.
   So in 2001 =101
- 4) Topaz increased from 55 to 60=5/55=9% increase
   So in 2001=65

So total in 2001 = 35+56+101+65

= 257 ~ 255.

### QNo:- 195 ,Correct Answer:- A

### **Explanation:**-

In 1998, 215 students pass out of 250 i.e. 86%. In 1999, 245 students pass out of 300 i.e. 81.6%. In 2000, 250 students pass out of 350 i.e. 71.4%. So, the best result is seen in 1998.

# QNo:- 196 ,Correct Answer:- C

### **Explanation:**-

Total Girl=25+25+23+20+25+12+12+3=145 Total Boys=45+186+120+100+65+32+58+5=611 60% of Boys=.6\*611=366.6, 70% of Girls=0.7\*145=101.5 So combined pass percentage=366.6+101.5= $\frac{468.1}{756}$ ×100 = 62% So, the correct answer is option C.

### QNo:- 197 ,Correct Answer:- A

### **Explanation:**-

Business Management:  $50/160 \times 100 = 31.25\%$ . Typewritng:  $43/261 \times 100 = 16\%$  approx. Costing:  $37/215 \times 100 = 17\%$  approx. Typewriting and costing:  $15/120 \times 100 = 12.5\%$ . Hence, it is highest for business management.

### QNo:- 198 ,Correct Answer:- B

Explanation:-

The required %age =  $(261 - 160) \times 100/160 = 63\%$ .

# QNo:- 199 ,Correct Answer:- D

### **Explanation:**-

Student of Art=85+451=536, Student Doing Costing only=25+120=145

So Required %= $\frac{145}{536} \times 100 = \frac{2900}{107} = 27.10\%$ 

QNo:- 200 ,Correct Answer:- D

# Explanation:-Diff %= $\frac{611-145}{145} \times 100 = \frac{466}{145} \times 100 = 321.3793$