

GENERAL INSTRUCTIONS

1. Take out the Answer Sheet from this Test Booklet without breaking the seal. If you find that the Question Paper Code does not match with the Paper Code on the Answer Sheet, exchange the booklet immediately with a new sealed Test Booklet.
2. Do not open the seal of the test Booklet until you are asked to do so by the Invigilator.
3. Carefully read and follow all the instructions given in the Answer Sheet.
4. The question paper contains four sections and 120 questions. Four possible answers (**A, B, C and D**) are given and there is only one correct answer for each question. Choose the correct answer and darken the appropriate bubble in the Answer Sheet with HB pencil. In case you wish to change an answer, erase the old answer completely using a good soft eraser.
5. Each correct answer carries one mark and each wrong answer carries negative 0.25 marks.
6. For a candidate to qualify, he/she should not only secure certain minimum marks in the test paper, but also necessarily obtain certain minimum marks in each of the four sections.
7. Tampering with the Bar Code or making any distinctive mark on the Answer Sheet will lead to disqualification of the candidate.
8. All the rough work should be done only on blank pages provided for this purpose at the end of this Test Booklet. No extra page will be provided.
9. No candidate will be allowed to leave the examination hall for any reason during the test. Candidates are allowed to leave the hall only after the Answer Sheets from all have been collected and accounted for.
10. Calculator, electronic diary, cellular phone, pager and any such electronic gadget will not be allowed in the examination hall.
11. Candidates found violating the instructions of the Test/Invigilator will be disqualified. A candidate giving assistance to any other candidate or seeking/receiving help from any source in answering questions or copying in any manner in the test will forfeit his/her chance of being considered for admission.
12. This Question paper contains **36** printed pages including pages for rough work. Please check all pages and report, if there is any discrepancy.

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SECTION 1: VERBAL COMMUNICATION (Questions 1 - 30)

Direction: Questions 1 – 4 relate to the passage given below:

Can poor countries afford to be green? That is a question which politicians in the developing world have often asked pointedly. To them, it seems that the obsession of some rich type with preserving forests and saving cuddly animals like pandas or lemurs, while paying less attention to the human beings living nearby, is both cynical and hypocritical. There is of course plenty of evidence that greenery and growth are not polar opposites. After decades of expansion in China and other fast-emerging economies, some of the negative side-effects and their impact on human welfare, above all the death toll caused by foul air and water, are horribly clear. Yet the relationship between growth and the state of environment is far from simple. Some experts feel that poor countries have been quiet right to challenge the sort of green orthodox which rejects the very idea of economic growth. Indeed, the single biggest variable in determining the countries ranking is income per head. But that doesn't imply that economic growth automatically leads to an improvement in the environment. Growth does offer solutions to the sorts of environmental woes (local air pollution, for example) that directly kill humans. This matters, because about a quarter of all deaths in the world have some link to environmental factors. Most of the victims are poor people who are already vulnerable because of bad living conditions, lack of access to medicine, and malnutrition. Among the killers especially of children, in which the environment plays the role, are diarrhoea, respiratory infections and malaria. These diseases reinforce a vicious circle of poverty and hopelessness by depressing production. According to the World Bank, the economic burden on society caused by bad environmental health amounts to between 2% and 5% of GDP. As poor countries get richer, they usually invest heavily in environmental improvements, such as cleaning up water supplies and improving sanitation, that boost human health. But the link between growth and environmentally benign outcomes is much less clear when it comes to the sort of pollution that fouls up nature (such as acid rain, which poisons lakes and forests) as opposed to directly killing human beings. The key to addressing that sort of pollution is not just money but good governance. Hence the poor Dominican Republic is much healthier than nearby Haiti, Costa Rica is far ahead of Nicaragua, in spite of broadly similar nature and resources, and wealthy Belgium is the sick man of Western Europe, with an environmental record worse than that of many developing countries.

Q.1 The passage DOES NOT talk about:

- (A) the impact of environmental health on economic growth.
- (B) factors determining good governance.
- (C) the impact of economic growth on environment health.
- (D) environmental factors affecting child mortality.

Q.2 Which one of the following statements CANNOT be inferred from the passage?

- (A) Fast-emerging economies are responsible for polluting their environment.
- (B) Bad environmental health affects a country's production.
- (C) Environment can be protected only after economic prosperity has been achieved.
- (D) The link between the state of the environment and human health is ambiguous.

Q.3 The MOST APPROPRIATE title for the passage would be:

- (A) How Green is Their Growth?
- (B) Green Orthodoxy
- (C) Growth vs Greenery
- (D) Global Warming

Q.4 Which one of the following can be MOST APPROPRIATELY inferred from the passage?

- (A) Environmental health should be the single biggest variable in determining a country's ranking.
- (B) Poor countries cannot afford to save forests or protect cuddly animals.
- (C) Haiti, Nicaragua and Belgium are the most polluted countries in the world.
- (D) Economic progress can help to ease environmental woes, as long as the governance is good

Direction for Questions 5 and 6: Choose the word which is OPPOSITE in meaning to the word given in CAPITAL LETTERS:

Q.5 FATUOUS

- (A) stupid
- (B) obese
- (C) intelligent
- (D) sincere

Q.6 TRACTABLE

- (A) obedient
- (B) capable
- (C) corruptible
- (D) stubborn

Direction for Questions 7- 9: Choose the grammatically CORRECT option from the sentences given below:

Q.7 (A) I requested the principle to remove me from the operation since it was going against my principals.
(B) I need to move further away from home in order to continue farther education.
(C) Knowledge of economical theories need not be helpful in making economic products.
(D) I have been working continuously for the last three months while she is continually taking days off.

Q.8 (A) Each of the finalists were exceptionally good and the choice for the best one among all three was very difficult indeed.
(B) Each of the finalists was exceptionally good and choosing the best one among the three was very difficult indeed.
(C) Each of the finalists was exceptionally good and choosing the best one between the three was very difficult indeed.
(D) Each of the finalists were exceptionally good and the choices among all three were very difficult indeed.

- Q.9 (A) People in this bar often orders foods with beers. Foods here taste nice and beers are cheap.
(B) People in this bar often order food with beer. Food here tastes nice and beers are cheap.
(C) People in this bar often order food with beer. Food here tastes nice and beer is cheap.
(D) People in this bar often order food with beer. Foods here taste nice and beer is cheap.

Direction: The direct speech in Question 10 is rewritten in the indirect form in the options below. Identify the grammatically CORRECT option.

Q.10 He said, —I am upset. My boss is not happy with my performance.□

- (A) He said that he was upset since his boss was not happy with his performance.
(B) He said his boss is upset because he is unhappy with his performance.
(C) He said that he is upset as because his boss is not happy with his performance.
(D) He said he was upset with his performance his boss is not happy.

Direction: From the options given in Question 11, choose the sentence which contains an INCORRECT SPELLING:

- Q.11 (A) The dress complements your hair colour.
(B) When such adulatory remarks are circulated, we can only despise those who produce them.
(C) There are too many dilettantes and not enough serious workers.
(D) He has been a medcore student all his life.

Direction: In Questions 12 and 13, select the pair of words from the given options that best expresses a relationship SIMILAR to the pair in CAPITAL LETTERS.

Q.12 INDUSTRIOUS : ASSIDUOUS

- (A) impoverished : poor (B) affluent : impecunious
(C) diagnosis : prognosis (D) impartial : biased

Q.13 SIDEREAL : STAR

- (A) ethereal : planets (B) chimeral : matter
(C) horticultural : plants (D) supernatural : heaven

Direction: Complete the sentence given in Question 14, by replacing the underlined portion with the most suitable phrase from the given options:

Q.14 Because mobile phones emit signals that can interfere with cockpit-to-control tower transmissions, airplane passengers' use of these instruments at all time's that the airplane is in motion, even while on the ground, are prohibited.

- (A) at all times during which the airplane, even while on the ground, is in motion, are
(B) during times of the airplane as being in motion, even on the ground, is
(C) when the airplane is in motion, even while on the ground, is
(D) during airplane motion, even when it is on the ground, are

Direction: Read the passage given below and answer Questions 20 - 23:

The starting point for our discussion is the common view expressed in the saying —Necessity is the mother of invention. □ That is, inventions supposedly arise when a society has an unfulfilled need. Would-be inventors, motivated by the prospect of money or fame, perceive the need and try to meet it. Some inventor finally comes up with a solution superior to an existing, unsatisfactory technology. Society adopts the solution if it is compatible with the society's values and other technologies. Some inventions do conform to this commonsense view of necessity as inventions' mother. Eli Whitney's 1794 invention of a cotton gin to replace laborious hand cleaning of cotton, and James Watt's 1769 invention of steam engine to solve the problem of pumping out water out of British coal mines were some such instances. These familiar examples deceive us into assuming that other major inventions were also responses to perceived needs. In fact, many or most inventions were developed by people driven by curiosity or by a love of tinkering, in the absence of any initial demand for the product they had in mind. Once a device had been invented, the inventor then had to find an application for it. Only after it had been in use for a considerable time did consumers come to feel that they needed it. Still other devices, invented to serve one purpose, eventually found most of their use for other, unanticipated purposes. Some inventions in search of an initial use included most of the major technological breakthroughs of modern times, including the airplane, the automobile, internal combustion engine, electric light bulb, the phonograph and transistor. Thus, invention is often the mother of necessity, rather than vice versa. For example, when Edison built his first phonograph in 1877, he published an article listing ten uses to which his invention might be put. Reproduction of music did not figure high on that list. Only after 20 years did Edison reluctantly concede that the main use of his phonograph was to play and record music. Again, when Nikolaus Otto built his first gas engine, in 1866, horses had been supplying people's land transportation needs for nearly 600 years, supplemented increasingly by steam-powered railroads, for several decades. There was no crisis in the availability of horses, no dissatisfaction with railroads. In 1896, Gottfried Daimler built the first truck. In 1905, motor vehicles were still expensive, unreliable toys for the rich. Public contentment with horses and railroads remained high until World War 1, when the military concluded that it really did need trucks. Intensive postwar lobbying by truck manufacturers and armies finally convinced the public of its own needs and enabled trucks to begin to supplant horse drawn wagons in industrialized countries. Thus the commonsense view of invention that served as our starting point reverses the role of invention and need, and probably overstates the importance of rare geniuses such as Watt and Edison. That —heroic theory of Invention' is encouraged by patent law, because an applicant for a patent must prove the novelty of the invention submitted. Inventors thereby have a financial incentive to denigrate or ignore previous work. In truth, technology develops cumulatively, and through the inventions and improvements of many predecessors and successors; rather than in isolated heroic acts, and it finds most of its uses after it has been invented, rather than being invented to meet a foreseen need.

Q.20 The MOST APPROPRIATE title for the passage would be:

- (A) Mother of Necessity
- (B) Inventors or Villains?
- (C) The Heroic Theory of Invention
- (D) Inventions, not Necessities

Q.21 Which of the following statements is INCORRECT as per the given passage?

- (A) Patent laws facilitate unnecessary inventions.
- (B) Inventions give rise to needs in society.
- (C) Curiosity is the mother of invention.
- (D) The military helped to popularize the use of trucks.

Q.22 According to the passage:

- (A) airplanes and automobiles were invented out of curiosity.
- (B) curiosity and necessity are the main obstacles for invention.
- (C) the applications of an invention are often not apparent immediately.
- (D) society helps to fulfill an inventor's need for money and fame.

Q.23 The last sentence of the passage implies that:

- (A) the author does not believe in the concept of —heroic inventions□.
- (B) an invention does not always have to be in response to some perceived need.
- (C) isolated heroic acts do not give rise to inventions.
- (D) initial inventors are never recognized.

Direction: Question 24 consists of four groups of jumbled phrases, of which only one is grammatically CORRECT. Identify the CORRECT option.

- Q.24 (A) growth and ongoing success / and providing a strong platform for sustainable / the complimentary expertise of / both these companies will create
(B) investment as a money-market account / although not quite as liquid an / a certificate of deposit is recommended / by financial experts for its high yield
(C) understanding how countries grow rich / but not as the panacea once looks like / the rule of law has reestablished / itself as a cultural concept
(D) a range of skills unique in any age / even present day scholar's who have been able / trace the prominent influence of Leonardo's predecessors on / his scientific theories and designs still credit Da Vinci

Direction for Questions 25 and 26: Choose the word which is CLOSEST in meaning to the word given in CAPITAL LETTERS:

Q.25 DECIMATE

- (A) reduce
- (B) destroy
- (C) bifurcate
- (D) divide

Q.26 MORIBUND

- (A) terminal
- (B) morbid
- (C) temporary
- (D) mundane

Direction: Questions 27 - 30 relate to the passage given below:

Beliefs' soften the hardships, even can make them pleasant. In God, man can find very strong consolation and support. Without Him, man has to depend upon himself. At testing moments, vanity, if any, evaporates and man cannot dare to defy the general beliefs; if he does, then we must conclude that he has got certain other strengths than mere vanity. This is exactly the situation now. Judgment is already too well known. Within a week it is to be pronounced. What is the consolation with the exception of the idea that I am going to sacrifice my life for a cause? A God-believing Hindu might be expecting to be reborn as a king, a Muslim or a Christian might dream of the luxuries to be enjoyed in paradise and the reward he is to get for his sufferings and sacrifices. But what am I to expect? I know the moment the rope is fitted round my neck and rafters removed, from under my feet: that will be the final moment, that will be the last moment. I, or to be more precise, my soul, as interpreted in the metaphysical terminology, shall all be finished there. Nothing further.

A short life of struggle with no such magnificent end shall in itself be the reward if I have the courage to take it in that light. That is all. With no selfish motive or desire to be awarded here or hereafter, quite disinterestedly have I devoted my life to the cause of independence, because I could not do otherwise. The day we find a great number of men and women with this psychology who cannot devote themselves to anything else than the service of mankind and emancipation of the suffering humanity - that day shall inaugurate the era of liberty.

Not to become a king, nor to gain any other rewards here, or in the next birth or after death in paradise, shall they be inspired to challenge the oppressors, exploiters, and tyrants, but to cast off the yoke of serfdom from the neck of humanity and to establish liberty and peace shall they tread this - to their individual selves perilous and to their noble selves the only glorious imaginable path. Is the pride in their noble cause to be misinterpreted as vanity? Who dares to utter such an abominable epithet? To him, I say either he is a fool or a knave. Let us forgive him for he cannot realize the depth, the emotion, the sentiment and the noble feelings that surge in that heart. His heart is dead as a mere lump of flesh, his eyes are weak, the evils of other interests having been cast over them. Self-reliance is always liable to be interpreted as vanity. It is sad and miserable but there is no help.

You go and oppose the prevailing faith, you go and criticize a hero, a great man, who is generally believed to be above criticism because he is thought to be infallible, the strength of your argument shall force the multitude to decry you as vainglorious. This is due to the mental stagnation: criticism and independent thinking are the two indispensable qualities of a revolutionary. Because Mahatmaji is great, therefore none should criticize him. Because he has risen above, therefore everything he says - may be in the field of politics or religion, economics or ethics — is right. Whether you are convinced or not you must say, —Yes. That's true. This mentality does not lead towards progress. It is rather too obviously, reactionary.

Q.27 Which one of the following statements can be deduced from the above passage?

- (A) Individuals who neither believe in God nor in the infallibility of great men are arrogant.
- (B) Belief is convenient as it even makes a hard reality at present more bearable because of a promise of a better future.
- (C) Only some individuals are able to attain greatness and by following them uncritically the society can make significant progress.
- (D) If you do not believe in God, then you can never hope to achieve anything great in life.

Q.28 Which of the following statements BEST captures the essence of the passage?

- (A) When we criticize a great man like Mahatmaji, we are motivated by arrogance and a desire to question anything good through meaningless arguments.
- (B) All human beings ought to desist from believing anything in order to be able to achieve something meaningful.
- (C) The author is trying to present his defense for not believing in the existence of God, even though it is probably more convenient to do so, than going against the generally accepted norms of the society.
- (D) It is wrong to believe in God for achieving kingship or for rewards in this world, or for paradise after death, and instead, one should believe in God without expecting anything in return.

Q.29 The word ‘vainglorious’ as used in the passage is EXACTLY OPPOSITE in meaning to:

- (A) truthful
- (B) proud
- (C) dishonest
- (D) humble

Q.30 Which of the following statements is NOT TRUE as per the passage?

- (A) Pride in a noble cause should not be interpreted as vanity
- (B) Service to mankind is the ultimate path to freedom.
- (C) Criticizing heroes and great men can lead to progress.
- (D) The author is upset because he has nothing to expect in the after life.

< End of VERBAL COMMUNICATION Section >

SECTION 2: LOGICAL REASONING (Questions 31 - 60)

Q.31 Consider the following set of three statements:

- (i) There are three statements in this set.
- (ii) Two of them are not true.
- (iii) Your IQ score will go up by 20 if you learn to play game Z.

For these three statements to be consistent:

- (A) Only statements (ii) and (iii) must be true.
- (B) Statement (iii) may be either true or false
- (C) Statements (ii) and (iii) must be false.
- (D) Statement (iii) must be false.

Direction for Questions 32 - 36 : Please read the following statements and answer the questions.

There are five friends Amisha, Binaya, Celina, Daisy and Eshaan. Two of them play table tennis while the other three play different games, viz. football, cricket and chess. One table tennis player and the chess player stay on the same floor while the other three stay on floors 2, 4 and 5. Two of the players are industrialists while the other three belong to different occupations viz. teaching, medicine and engineering. The chess player is the oldest while one of the table tennis players, who plays at the national level, is the youngest. The other table tennis player who plays at the regional level is between the football player and the chess player in age. Daisy is a regional player and stays on floor 2. Binaya is an engineer while Amisha is the industrialist and plays tennis at the national level.

Q.32 Who stays on floor 4?

- (A) Amisha
- (B) Binaya
- (C) Celina
- (D) Eshaan

Q.33 What does Eshaan play?

- (A) Chess
- (B) Football
- (C) Cricket
- (D) Table tennis at regional level

Q.34 Age wise, who among the following lies between Daisy and Eshaan?

- (A) Teacher
- (B) Industrialist
- (C) Engineer
- (D) Doctor

Q.35 Who all stay on floor 3?

- (A) Amisha and Binaya
- (B) Daisy and Eshaan
- (C) Binaya and Daisy
- (D) Celina and Daisy

Q.36 What is the occupation of the chess player?

- (A) Engineer
- (B) Industrialist
- (C) Doctor
- (D) Teacher

Direction for Questions 37 and 38: There are statements followed by four conclusions numbered I, II, III, IV. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusion logically follows from the given statements.

Q.37 Statements:

- (i) All Roses are flowers.
- (ii) Some flowers are Vegetables.

Conclusions :

- I. Some Vegetables are Roses.
- II. All Vegetables are Roses.
- III. Some Roses are Vegetables.
- IV. All Roses are Vegetables.

- (A) All conclusions follow.
- (B) Only I and II follow.
- (C) None of the conclusions follow.
- (D) Only II and III follow.

Q.38 Statements:

- (i) Some Players are Athletes.
- (ii) All Athletes are Humans.
- (iii) No Human is an Ant.

Conclusions :

- I. Some Players are not Ants.
- II. Some Humans are Players.
- III. No Athlete is an Ant.
- IV. Some Ants are not Athletes.

- (A) I, II and III follow.
- (B) II, III and IV follow.
- (C) I, II and IV follow.
- (D) All follow.

Direction for Questions 39 - 41: The sentences given below, when properly sequenced form a coherent paragraph. Each sentence is numbered. Select the most logical order of the sentences.

Q.39 (i) The energy task force that met here on Saturday is reported to have taken the decision for re-tendering the two projects. (ii) The lowest tariff quoted by the firm for Kacahan project was Rs. 2.83 per unit and for Bara Rs. 2.88 per unit. (iii) Global tenders for the two projects were invited in January 2008. (iv) This bid was set aside by cabinet decision on grounds that tariff was too high.

- (A) (i)-(iii)-(ii)-(iv) (B) (i)-(ii)-(iii)-(iv) (C) (i)-(iii)-(iv)-(ii) (D) (iii)-(ii)-(iv)-(i)

Q.40 (i) Heidi Klum says that deep love keeps her marriage to Seal strong. (ii) The 34-year old beauty also said that she considered Seal to be Leni's (her daughter from her previous marriage) real father. (iii) Heidi Klum concluded by saying, —I feel lucky that I have found Seal. He is my best friend. □ (iv) The super model who married the *Kiss from Rose* singer three years ago stressed the importance of love and believes that it is vital for happy relationship.

- (A) (i)-(iii)-(ii)-(iv) (B) (i)-(ii)-(iv)-(iii) (C) (iii)-(i)-(ii)-(iv) (D) (iv)-(ii)-(i)-(iii)

Q.41 (i) It is a record and particularly an interesting record that beats the year 1957 which was the year of the baby boom. (ii) More babies were born in USA last year than in any other year in the history. (iii) 4,315,000 babies were born in USA last year. (iv) This baby boom is in contradiction to the recent US economy trend that is manifested in soaring gas prices, rising inflation and cost of living.

(A) (i)-(ii)-(iii)-(iv) (B) (ii)-(iv)-(iii)-(i) (C) (ii)-(iii)-(i)-(iv) (D) (iii)-(i)-(iv)-(ii)

Q.42 Since all peacocks that I have seen on academic campuses have been greenish blue, it follows that peacocks that I will see in the zoo will also be greenish blue.

Which of the following most closely parallels the reasoning of the preceding argument?

(A) All peacocks are greenish blue.

(B) Every apple that I have eaten has been sweet; so a fruit that is sweet must be an apple.

(C) Since no cold medicine has ever helped me, this home remedy will probably not work either.

(D) Since no tutor has helped me improve my guitar playing skills, the new tutor will probably not help either.

Q.43 A man **X** started his walk from location **P** and later arrived at location **R** and at the same time another person **Y** arrived at the location **R**, completing his walk from location **Q**. If both **X** and **Y** walked without stopping, who walked at a faster average speed if:

1. **Y** started walking 15 minutes after **X**.

2. The distance from **Q** to **R** is less than the distance between **P** and **R**.

(A) Statement 1 and 2 are both required to answer the question.

(B) Not enough facts are given to answer the question.

(C) Statement 1 alone is sufficient to answer the question but statement 2 alone is not sufficient.

(D) Statement 1 contradicts statement 2.

Direction for Question 44: A statement followed by three assumptions numbered I, II and III are given. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement, then decide which of the answers (A), (B), (C), or (D) is correct.

Q.44 **Statement:** As our business is expanding we need to appoint more managers — says Mr. Adani, owner of Crayon Limited.

Assumptions: I. The present managers are not competent.

II. More staff will further expand the business.

III. Suitable persons to be taken as managers will be available.

(A) Only I is implicit

(B) Only II is implicit

(C) Only III is implicit

(D) None is implicit

Q.45 It is known that at the university, 60% of the students play tennis, 50% of them play bridge, 70% jog, 20% play tennis and bridge, 30% play tennis and jog, and 40% play bridge and jog. If someone claimed that 20% students play bridge, jog and play tennis,

- (A) The person is telling the truth.
- (B) Students who do all three activities are more than 20%.
- (C) Students who do all three activities are less than 20%.
- (D) There are no students who do all three activities.

Q.46. Three married couples on a journey come to a river where they find a boat that cannot carry more than two persons at a time. An additional condition is that a lady cannot be left on either bank where other men are present, without her husband.

- (A) These people will not be able to cross the river.
- (B) They will be able to cross the river in 9 steps.
- (C) They will be able to cross the river in 10 steps.
- (D) They will be able to cross the river in 13

Direction for Questions 47 and 48: Consider statements (i) – (iv) :

- (i) : X was born before Y.
- (ii) : Y was born in the sixteenth century.
- (iii) : Z was born before A.
- (iv) : B was a compatriot of X.

S : If either B was a compatriot of X or Z was born before A, then Y was born in the sixteenth century

Q.47 To make sentence S true,

- (A) (ii), (iii) and (iv) should be false.
- (B) (iii) and (iv) should be true and (ii) should be false.
- (C) (iii) should be true and (ii) and (iv) should be false.
- (D) (i), (ii), (iii) and (iv) should be true.

Q.48 To make sentence S false,

- (A) (ii), (iii) and (iv) should be true.
- (B) (iii) or (iv) should be true and (ii) should be false.
- (C) (iii) and (iv) should be true and (ii) should be false.
- (D) (iii) and (iv) should be false and (ii) should be true.

Direction for Questions 49 - 51: Read the following passage carefully and answer the questions that follow:

Five flags, each with a distinct symbol namely Panther, Tiger, Rose, Swan and Quail, have been arranged in the following order:

- (i) Panther is next to Quail and Swan is next to Rose.
- (ii) Swan is not next to Tiger, Tiger is on the extreme left hand side and Rose is on the second position from the right hand side.
- (iii) Panther is on the right hand side of Quail and to the right side of Tiger.
- (iv) Panther and Rose are together.

Q.49 Which of the following statements is true?

- (A) (iii) and (iv) are contradicting
- (B) Either (iii) or (iv) is redundant
- (C) (iii) is redundant
- (D) (iv) is redundant

Q.50is on the extreme right and is on the extreme left.

- (A) Tiger & Rose
- (B) Quail & Tiger
- (C) Swan & Tiger
- (D) Tiger & Swan

Q.51 is in the middle and is on its right.

- (A) Panther & Swan
- (B) Rose & Swan
- (C) Panther & Rose
- (D) Quail & Panther

Direction for Questions 52 and 53: A statement and two actions are given. Action is a step to be taken for improvement or follow up in regard to the problem mentioned in the statement. On the basis of the information given in the statement and assuming that the statement is true, decide which of the given action logically follows.

Q.52 **Statement:** The Government of Rajasthan, in a report, revealed that due to social disturbances and bomb blasts in Jaipur, the number of foreign tourists has decreased considerably, resulting in a loss of Rs. 200 crores.

Actions:

- I Government should provide financial support to the tourism sector.
- II Foreign tourists should be advised to visit the country at their risk.

- (A) Only I follows.
- (B) Only II follows.
- (C) Either I or II follows
- (D) Neither I nor II follows

Q.53 **Statement :** The Indian textile industry venturing into the Western European market faces tough competition from China.

Actions:

I India should search for other international markets for its textile products.

II India should improve the quality and reduce costs to compete with China in capturing the market.

- (A) Only I follows.
- (B) Only II follows.
- (C) Both I and II follow.
- (D) Neither I nor II follows.

Q.54 A jury reaches a verdict when all of its members come to a unanimous agreement. In one recent well publicized trial, the judge thought that the jury had reached a verdict. Eventually it was learnt that one juror did not agree with the others. The proceedings were ultimately declared a mistrial by the judge.

Based only on the above information, which of the following statements is a valid conclusion.

- (A) The jury never actually reached a verdict.
- (B) The jury reached a verdict but had been disrupted by a single juror.
- (C) There have been other trials where the jury failed to reach a verdict.
- (D) Only trials in which the jury fails to reach a verdict are declared mistrials.

Q.55 Manisha will eat the orange if Rajesh does not cook.

Based on the information above which of the following must be true

- (A) Manisha will not eat the orange if Rajesh cooks.
- (B) If Manisha did not eat the orange, then Rajesh did cook.
- (C) If Manisha ate the orange, then Rajesh did not cook.
- (D) If Rajesh does not cook, Manisha will eat the orange.

Q.56 Judging from the message being conveyed and the apparent authoritativeness of their sources, which of the following is the most reasonable and trustworthy statement.

- (A) **FILM CRITIC:** Internet, web blogs, chats, email etc. have all made children isolate themselves and become less social.
- (B) **RTI OFFICER IN CHARGE:** We have already started collecting data on the number of students who applied, who qualified and finally joined in the last four years.
- (C) **EDUCATION CORRESPONDENT:** According to a mother, winter uniform for girls should be changed to pants from skirts in the northern part of the country.
- (D) **RAILWAY OFFICER:** Traveling in planes is very expensive, inconvenient and time consuming. These are some of the reasons why more people travel by train and the rail-road network is well developed in our country.

Q.57 Look at the sentences given below

- (i) If the contract is valid, then X is liable.
- (ii) If X is liable, he will be bankrupt.
- (iii) If the bank loans him money, he will not go bankrupt.

Select the statement that is consistent with the above statements

- (A) The contract is valid and the bank will loan him money.
- (B) The contract is valid and the bank will not loan him money.
- (C) The contract is not valid and he will go bankrupt.
- (D) The contract is not valid and he is liable.

Direction for Questions 58 and 59: Read the following passage and answer the questions.

Though persons of any age can have cancer, recent research has shown that eating fiber rich diet may reduce risk of some types of cancer. Modern lifestyle has resulted in increased consumption of junk food that is low in fiber. We should fortify junk food with fiber.

Q.58 —NO JUNK FOOD NO CANCER□!

- (A) The statement cannot be logically inferred from the passage.
- (B) The statement is a logical inference from the passage above.
- (C) The passage has contradicting statements.
- (D) None of the above.

Q.59 I: Cancer is a modern disease.

II: Modern lifestyle and eating habits may have increased risk of cancer.

- (A) Both I and II can be logically inferred from the above passage.
- (B) Neither I nor II can be logically inferred from the above passage.
- (C) Only I can be logically inferred from the above passage.
- (D) Only II can be logically inferred from the above passage.

Q.60 Four pairs of numbers are given below of which the last number is missing. In all pairs, the number on the left has a certain relationship with the number on the right. Select the option that has the same relationship with the given number.

4:8; 6:10; 12:14; 18: ?

- (A) 20
- (B) 30
- (C) 42
- (D) 60

< End of LOGICAL REASONING Section >

SECTION 3: QUANTITATIVE ABILITY (Questions 61 - 90)

Q.61 The following probability distribution can be used to represent the waiting time of the customer in a bank (w):

$$f(w) = \frac{1}{b-a} \quad \text{for } a \leq w \leq b$$
$$= 0 \quad \text{otherwise}$$

The expected waiting time of the customer in the bank $E(w)$ is

- (A) $\frac{a+b}{2}$ (B) $\frac{b-a}{2}$ (C) $b-a$ (D) $\frac{w}{4}$

Q.62 The mean monthly salary paid to graduating MBA class of 2008 of a management institute is Rs. 16,000. The mean monthly salary paid to students with work experience is Rs. 18,000. The corresponding figure for the students without any work experience is Rs. 12,000. Determine the percentage of students with work experience and percentage of students without any work experience in the class of 2008.

- (A) 66.67 % with work experience, 33.33 % without work experience
(B) 33.33 % with work experience, 66.67 % without work experience
(C) 75 % with work experience, 25 % without work experience
(D) 25 % with work experience, 75 % without work experience

Q.63 A large private airline increased the price of their air tickets by 20 percent to compensate for the increase in airport charges. Due to increasing cost of Aviation Turbine Fuel, the airline had to increase further the price of the ticket by 30 percent. By approximately what percentage the ticket prices have gone up as a result of two price hikes by the airline.

- (A) 50% (B) 56% (C) 54% (D) 60%

Q.64 Determine the sum of the infinite series in Geometric Progression:

$$\frac{1}{3} - \frac{1}{9} + \frac{1}{27} - \frac{1}{81} + \dots$$

- (A) 1/4 (B) infinite (C) 2 (D) 4/3

Q.65 In the data set $\{2, 5, 7, 8, X\}$, the arithmetic mean is same as the median. Determine the value of X . Assume $X \geq 8$.

- (A) 8 (B) 10 (C) 13 (D) 15

Q.66 Historical sales data of a retail store indicate that 40 percent of all customers that enter the store make a purchase. Determine the probability that exactly two of the next three customers will make a purchase.

- (A) 0.388 (B) 0.667 (C) 0.400 (D) 0.288

Direction: Question 67 is based on the following information:

The human resources department of a BPO firm encourages its employees to put in extra effort in order to improve the productivity. The department collected data on extra effort (E) put in by the employees in a particular month and the corresponding percentage increase in the productivity (O) of the employees. The data is shown below.

E	2	5	9	14	24	42	60	100	150
O	0.69	1.60	2.19	2.63	3.17	3.73	4.09	4.60	5.01

Q.67 Suggest a mathematical function that will best fit the given data.

(A) $O = a + bE$ $a, b \geq 0$

(B) $O = a \log E$ $a \geq 0$

(C) $O = ae^E$ $a \geq 0$

(D) $O = \frac{a}{bE}$ $a, b \geq 0$

Direction: Questions 68 and 69 are based on the following information:

An automobile car assembly system consists of two independent subsystems: chassis assembly (C) and engine assembly (E). Based on the prior maintenance data, the following probabilities are available. The probability that C fails is 0.2. The probability that both C and E fail together is 0.15. The probability that E fails alone is 0.15. The event —C fails alone□ implies that C fails when E is working and vice versa.

Q.68 The probability that C fails when E has failed is

- (A) 0.5 (B) 0.2 (C) 0.3 (D) 1.0

Q.69 The probability that C fails alone is

- (A) 0.3 (B) 0.2 (C) 0.15 (D) 0.05

Q.70 An oil refinery produces 200 barrels of crude oil per day. The price (Rs / barrel) of the crude oil t days from now can be written as $P(t) = 20 + 0.2(t)^{0.5}$. If the crude oil is sold as soon as it is produced, the total revenue $R(t)$ earned by the refinery up to t days from now can be written as:

- (A) $R(t) = 4000t + (80/3)t^{1.5} + \text{constant}$
 (B) $R(t) = (20 + 0.2 t^{0.5}) 200 + \text{constant}$
 (C) $R(t) = (20 + 0.2 t^{0.5}) 200t + \text{constant}$
 (D) $R(t) = (20t^2 + 0.2 t^{0.5}) 200 + \text{constant}$

Q.71 Calculate the values of x in the following equation:

$$\frac{y^7 y^5}{y^6} = y^{\sqrt{(x^2 - 5x)}}$$

- (A) -4, 9 (B) 4, 9 (C) 4, 8 (D) 7, 6

Q.72 The number of shoppers entering in a retail store in an hour is a good example of the random variable that follows:

- (A) Normal distribution (B) Binomial distribution
(C) Poisson distribution (D) None of the above

Q.73 An investment firm wants to invest Rs. 30,000 into two different bonds. The first bond pays 5 percent interest per year and the second bond pays 7 percent interest per year. The firm wants to earn an annual interest of Rs. 1800. Which of following equations in linear form is the correct representation of the firm's decision problem? Assume that x_1 and x_2 are the amounts to be invested in first and second bond respectively.

(A) $\begin{pmatrix} 0.07 & 0.05 \\ 1 & 1 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} 1800 \\ 30000 \end{pmatrix}$

(B) $\begin{pmatrix} 0.05 & 1 \\ 1 & 0.07 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} 1800 \\ 30000 \end{pmatrix}$

(C) $\begin{pmatrix} 0.05 & 0.07 \\ 1 & 1 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} 1800 \\ 30000 \end{pmatrix}$

(D) $\begin{pmatrix} 1 & 1 \\ 0.05 & 0.07 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = \begin{pmatrix} 1800 \\ 30000 \end{pmatrix}$

Q.74 If 1 Japanese Yen = 0.01 US Dollars, 100 US Dollars = 5000 Indian Rupees (INR), how many Japanese Yens are 100 INR?

- (A) 20 (B) 2000 (C) 200 (D) 500

Q.75 The annual depreciation of a vehicle using straight line depreciation method is Rs. 2000. The salvage value of the vehicle at the end of 5 years is Rs. 1000. Determine the original value of the vehicle.

- (A) Rs. 10,000 (B) Rs. 5,000 (C) Rs. 11,000 (D) Rs. 12,000

Q.76 The firm uses the following function to calculate the production output (PO):

$PO = 5.3C^2L^{1.5}$, where C = capital invested and L = labor employed.

If the capital invested (C) increases by 20 percent, the change in PO will be:

- (A) 20% decrease (B) 32% increase (C) 56% increase (D) 44% increase

Q.77 The third term of a finite series in Arithmetic Progression is 28. The sum of the first three terms is 54. The first term of the series is:

- (A) 8 (B) 10 (C) 18 (D) 2

Q.78 A manual process requires 10 hours for an initial set up after which it takes 1 hour/unit to produce a product. To produce the same product, an automated process will take 25 hours for an initial set up after which it takes 0.5 hours / unit. If we want to produce a batch of 25 units, how many units should be produced by each process to minimize the total set up and production time?

- (A) 25 units by automated process, 0 units by manual process
- (B) 10 units by automated process, 15 units by manual process
- (C) 15 units by automated process, 10 units by manual process
- (D) 0 units by automated process, 25 units by manual process

Q.79 Aman, Baman and Raman jointly invested Rs. 60,000 in a small services firm. They decided to share the profits from this investment in the ratio of their investments. The firm had a very successful first year and recorded profits of Rs. 1,00,000. Aman and Baman received Rs. 40,000 and Rs. 25,000 as their respective share of the profit. The respective investments of Aman, Baman and Raman were:

- (A) 30,000; 10,000; 20,000
- (B) 21,000; 15,000; 24,000
- (C) 24,000; 15,000; 21,000
- (D) 25,000; 12,000; 23,000

Direction: Questions 80 and 81 are based on the following information:

After a successful T20 cricket tournament, Indian Premier League (IPL) is interested in launching a new variant of One Day International cricket called T40 (forty overs a side game). Indian Cricket League (ICL, a rival league of IPL) also has similar thoughts. An independent agency conducted a survey of 1000 respondents to determine the consumer preference of IPL versus ICL, and preference of T20 versus T40. Unfortunately, some of the survey information is lost. Following information is available:

- i. 70 percent of the respondents prefer T20 over T40.
- ii. 80 percent of the respondents prefer IPL over ICL.
- iii. 80 percent of those who preferred IPL preferred T20 over T40.

Q.80 Determine the number of respondents who prefer both T20 and ICL.

- (A) 640
- (B) 60
- (C) 50
- (D) 140

Q.81 Determine the number of respondents who prefer both T40 and IPL.

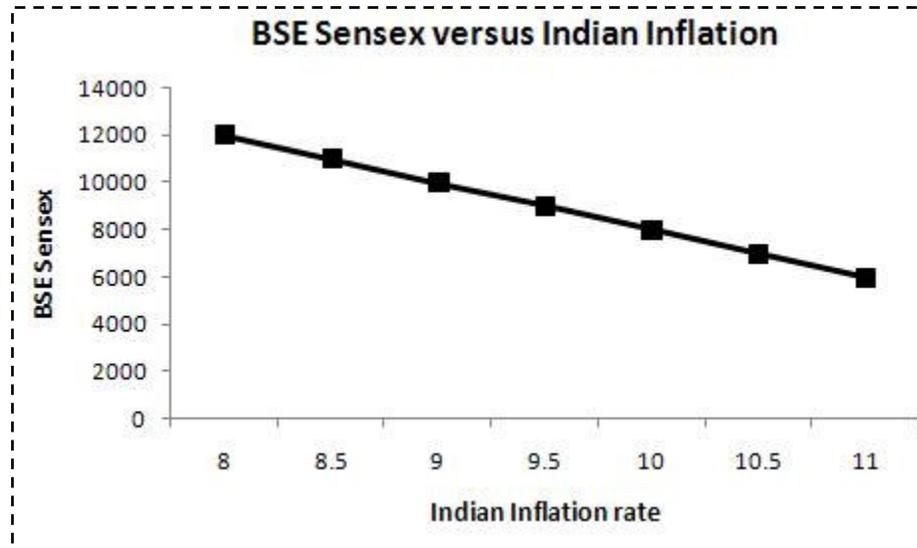
- (A) 160
- (B) 60
- (C) 640
- (D) 140

Q.82 Determine $\frac{d}{dx}(\log \sin x)$

- (A) $\tan x$
- (B) $\cot x$
- (C) $\sec x$
- (D) $\cos x$

Direction: Question 83 is based on the following graph:

An investment consultant has plotted the graph between BSE Sensex and Indian inflation rate as below to better understand their relationship.



Q.83 What is the coefficient of correlation between BSE Sensex and the Indian inflation rate?

- (A) -1000 (B) -0.05 (C) -1 (D) -2000

Direction: Questions 84 and 85 are based on the following information:

The marketing team of a FMCG firm can sell Y units of shampoo packets at a price of Rs. $\left(10 - \frac{Y}{100}\right)$ each. The total cost of producing Y shampoo packets is Rs. $\frac{Y^2}{10}$. The firm incurs an additional fixed cost of Rs. 100 in production and distribution. Assume that there are no other costs.

Q.84 Find the number of shampoo packets that the firm should sell to maximize its profits?

- (A) 495 (B) 595 (C) 450 (D) 550

Q.85 If the fixed cost of production and distribution increases from Rs. 100 to Rs. 200, the optimal number of the shampoo packets to be sold will

- (A) increase (B) decrease
(C) not change (D) cannot say

Q.86 An artist has completed one fourth of a rectangular oil painting. When he will paint another 100 square centimeters of the painting, he would complete three quarters of the painting. If the height of the oil painting is 10 centimeters, determine the length (in centimeters) of the oil painting.

- (A) 15 (B) 20 (C) 10 (D) 25

Direction: Questions 87 - 89 are based on the following information:

A bank is in the process of formulating a loan policy for its customers. The maximum budget available for this policy is Rs. 10,00,000. The bank earns interest on the loan amount. However, some portion of the loan amount cannot be recovered and is classified as bad debt. The type of loan, interest rates, and percentage of bad debts are provided below:

Type of Loan	Interest Rate (%)	Bad Debt (%)
Personal	15	10
Car	30	5
Home	20	8

Let x_1 , x_2 and x_3 be the amount of loan allocated by the bank to personal, car and home loans respectively.

Q.87 If the objective of the bank is to maximize the net return, the objective function of the bank can be written as:

- (A) Maximize $0.15(0.90)x_1 + 0.30(0.95)x_2 + 0.20(0.92)x_3 - 0.10x_1 - 0.05x_2 - 0.08x_3$
- (B) Maximize $0.15x_1 + 0.30x_2 + 0.20x_3 - 0.10x_1 - 0.05x_2 - 0.08x_3$
- (C) Maximize $0.15(0.90)x_1 + 0.30(0.95)x_2 + 0.20(0.92)x_3$
- (D) None of the above

Q.88 The following is one of the constraints of the bank:

- (A) $x_1 + x_2 + x_3 = 1000,000$
- (B) $x_1 + x_2 + x_3 \geq 1000,000$
- (C) $x_1 + x_2 + x_3 \leq 1000,000$
- (D) $x_1 + x_2 + x_3 < 1000,000$

Q.89 Based on the data, the bank would wish to maximize the loan amount allocation to:

- (A) personal loan
- (B) car loan
- (C) home loan
- (D) none of the above

Q.90 The area of a circle whose centre is at $(2, 0)$ is π . The circle does not pass through the following point:

- (A) $(2, -1)$
- (B) $(2, 1)$
- (C) $(3, 0)$
- (D) $(2, 2)$

< End of QUANTITATIVE ABILITY Section >

SECTION 4: DATA INTERPRETATION (Questions 91 - 120)

Direction: Questions 91 - 94 are based on the following passage:

Deregulation and competition have reduced communication costs. The average cost of a three minute call to the United States fell from \$ 4.00 in 1999 to \$ 1.40 in 2004. Over that period, the share of people with access to the internet tripled. But diffusion of technology around the world and within countries is unequal. Average contracted capacity for international internet connections in developing economies grew from 3 bits per second per person in 2000 to 150 in 2006, still far short of the high income countries' average, estimated at 5000. The internet capacity of low income (less developed) countries was lower than even the developing countries, at an average of 20 bits per second per person in 2006, and international voice traffic was less than 5% that of high income countries. With only 1 personal computer in 2006, South Asia lags behind other regions in access to personal computers. However, there are positive indications of change. Between 2000 and 2006, fixed line and mobile phone subscribers per 100 people increased from 3 per thousand to 150 per thousand. This growth was driven mainly by 7 fold increase in mobile phone subscribers.

Q.91 Between 1999 and 2004, average calling costs to the United States fell by

- (A) approximately 65%
- (B) approximately 186%
- (C) approximately half
- (D) insufficient information

Q.92 In 2006, the contracted capacity for internet connections for developing economies

- (A) grew by 50% on per capita basis from its capacity in 2000
- (B) was 3% of average contracted capacity of high income countries on per capita basis
- (C) grew 500 times the capacity in 2000
- (D) was 3 bits per second

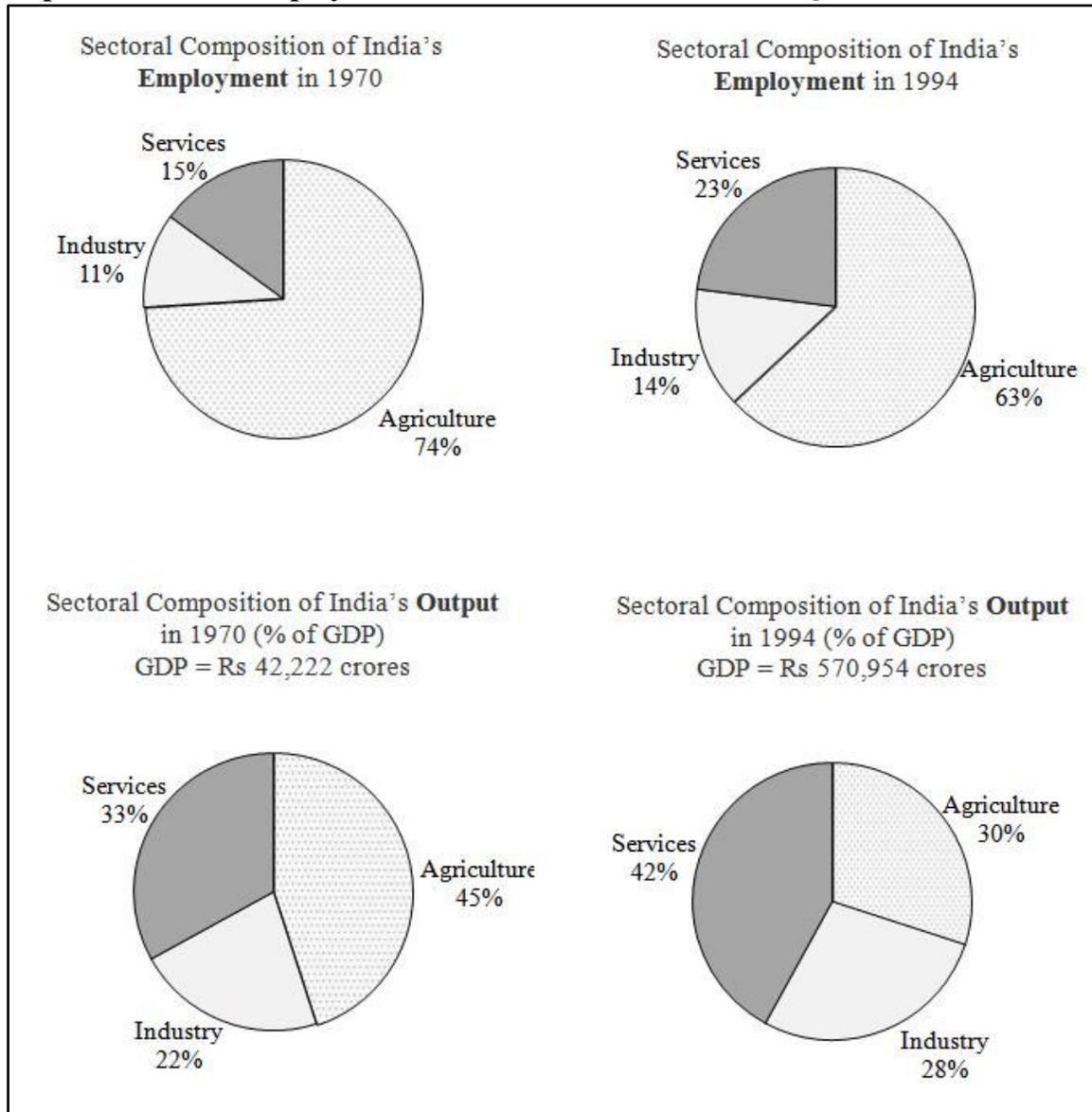
Q.93 For low income economies

- (A) internet capacity was 0.4% of the capacity of high income countries in per capita terms
- (B) internet capacity was 20% of the capacity of developing countries in per capita terms
- (C) international voice traffic was 250 bits per second
- (D) share of people with access to the internet tripled over six years

Q.94 During 2000 to 2006, in South Asia, access to telephones increased by

- (A) 7%
- (B) 7 times
- (C) 500 times
- (D) 4900%

Direction: Refer to the four pie charts relating to the sectoral composition of output and their respective share in employment in 1970 and 1994 and answer Questions 95 - 99:



Q.95 Which of the following is FALSE:

- (A) While the share of agriculture in the GDP has come down, the share of services and industry has increased
- (B) Agriculture continues to be the predominant provider of employment in India
- (C) The share of employment in services has increased more than its share in GDP
- (D) None of the above

Q.96 Between 1970 and 1994 the Indian GDP, in rupee terms

- (A) has increased only marginally in services
- (B) has increased most significantly for agriculture
- (C) has risen by more than 15 times for both services in industry
- (D) none of the above

Q.97 Between 1970 and 1994 the GDP of India in agriculture

- (A) decreased by 15%
- (B) increased by about 9 times
- (C) cannot be calculated based on the data given
- (D) none of the above

Q.98 In 1970 the contribution to GDP from services in rupee terms was

- (A) less than Rs. 10,000 crores
- (B) more than Rs. 15,000 crores
- (C) between Rs. 10,000 and 15,000 crores
- (D) none of the above

Q.99 In 1994 if the share of industry in output (GDP) was 30 % instead of 28 %, then in rupee terms, it would have been

- (A) less than Rs. 100,000 crores
- (B) more than Rs. 200,000 crores
- (C) more than Rs. 150,000 crores
- (D) between Rs. 100,000 and 150,000 crores

Direction: Questions 100- 140 are based on the following information:

Foreign Direct Investment Flows

Year	Outflows (Area of Origin)			Inflows (Destination)		
	1970	1980	1990	1970	1980	1990
<i>High Income Countries (FDI as a percentage of total)</i>						
USA	46	21	21.8	11.2	30	20
Europe	42.5	51.6	44.6	43.8	35.6	38.8
Japan	5.4	14	5.4	0.6	0.5	0.6
Oceania	1	2.2	1	6	4.8	2.4
Total	94.9	88.8	72.8	61.6	70.9	61.9
<i>Developing and Transition Countries (FDI as a percentage of total)</i>						
Latin America	0.5	1	2.2	12.8	9	11
Africa	0.4	1.5	0.5	4.5	2.5	1.8
Asia	0.5	3.8	9.5	6.6	13	18.6
Eastern Europe	0	0	0.4	0	0.5	3
Total	1.2	6.3	12.6	23.9	25	34.4
<i>World (In billion dollars)</i>						
FDI	23.7	124.4	523.3	21	113.9	530.2

Q.100 Amongst all the high income countries, the region / country which has the maximum share in FDI flows is

- (A) U.S.A
- (B) Europe
- (C) Japan
- (D) Oceania

Q.101 Amongst all the high income countries, the region / country which gained the most in terms of percentage points of net FDI inflows is

- (A) USA (B) Europe (C) Japan (D) Oceania

Q.102 Based on the above table, which of the following statements is FALSE for the developing and transition countries

- (A) Asia's outflow in terms of percentage points is steadily increasing
 (B) Asia has been the biggest gainer in terms of percentage points of FDI inflow
 (C) Africa has been marginalized in the share of FDI flows
 (D) Eastern Europe has not gained in net percentage points of FDI inflows

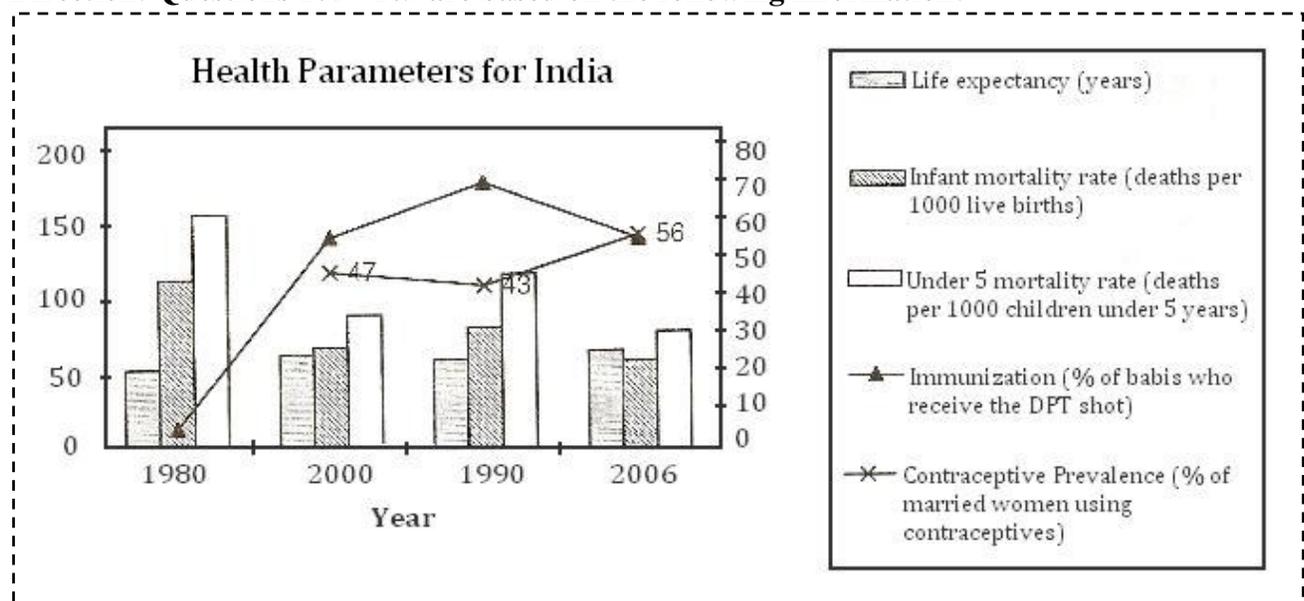
Q.103 Based on the above table, which of the following statements is FALSE

- (A) FDI inflows into USA have risen by almost 45 times in two decades
 (B) Though outflows have risen for high income countries, inflows have risen even faster for them
 (C) Both outflows and inflows have risen for Asia
 (D) Oceania has become a net FDI provider to the world

Q.104 Based on the table, which of the following statements is TRUE

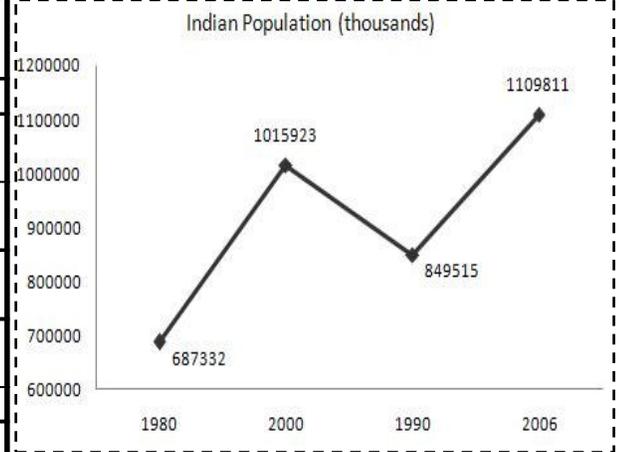
- (A) While inflows have increased for the developing and transition countries, outflows have decreased for them
 (B) Eastern Europe has not seen much growth of FDI inflows relative to other developing and transition countries
 (C) The greatest increase in net outflow has been for Eastern Europe
 (D) Though inflows have increased for the developing and transition countries, outflows have increased at a much faster rate

Direction: Questions 105 - 109 are based on the following information:



Values for the columns are represented on the left and values for the lines are represented on the right

Health and Population Parameters	All Low Income Countries		South Asia	
	1990	2006	1990	2006
Year	1990	2006	1990	2006
Population (in thousands)	1747930	2419656	1120092	1499368
Life expectancy	57	60	59	64
Infant mortality rate	93	74	86	62
Under 5 mortality rate	143	112	123	83
Immunization	65	68	67	64
Contraceptive Prevalence	33	44	40	53



Q.105 In India, the infant mortality rate, under 5 mortality rate and DPT immunization incidence

- (A) have been falling over the years
- (B) have been rising over the years
- (C) have been following different trends
- (D) none of the above

Q.106 In 1990, contraceptive prevalence for India was

- (A) close to the South Asian average in 1990
- (B) close to the low income countries' average in 1990
- (C) double the low income countries' average in 2006
- (D) exactly same as the South Asian average in 2006

Q.107 Under 5 mortality rate for low income countries in 1990 is

- (A) less than that of India for 1990
- (B) less than that of South Asia for 1990
- (C) more than that of South Asia for 1990 by 10 per thousand births
- (D) more than that of South Asia for 1990 by 20 per thousand births

Q.108 The growth rate of population in India between 1990 and 2006 was

- (A) much more than the growth rate of population in South Asia between 1990 and 2006
- (B) almost same as the growth rate of population in Low income countries between 1990 and 2006
- (C) much less than the growth rate of population in South Asia between 1990 and 2006
- (D) much less than the growth rate of population in Low income countries between 1990 and 2006

Q.109 In 2006, infant mortality rate in South Asia

- (A) contributed to approximately half of the under 5 mortality rate in the same year
- (B) is not related to the under 5 mortality rate in the same year
- (C) contributed to approximately 75% of the under 5 mortality rate in the same year
- (D) contributed to approximately 85% of the under 5 mortality rate in 2006

Direction: Questions 110 – 115 are based on the following information:

The results of a competitive exam, where candidates were tested on their knowledge in English, Science, Maths and Art are given. The shaded cells in the title row represent the range of marks secured and the columns below each such cell represent the number of candidates scoring within the specified range of marks.

Subject	Total Marks	81-100	71-80	61-70	51-60	41-50	31-40	21-30	11-20	0-10	
English	100	0	1	4	85	730	4205	10885	9170	1920	
Science	100	2	5	875	3350	6775	7778	5065	1800	1350	
Maths	100	0	0	0	6	199	3400	15045	6975	1375	
Art	50	0	0	0	0	220	2145	10140	11858	2637	

Q.110 The modal range for English is

- (A) 21 – 30
- (B) 31 – 40
- (C) 41 – 50
- (D) 51 - 60

Q.111 The subject in which the maximum number of candidates scored more than 30 marks in the examination is

- (A) English
- (B) Maths
- (C) Art
- (D) None of the Above

Q.112 The total number of candidates who appeared for the exam, assuming that there were no absentees, are

- (A) more than 50,000
- (B) 25,635
- (C) 26,973
- (D) 27,000

Q.113 The average marks scored in Art, rounded off to the tenth place, are

- (A) 10
- (B) 20
- (C) 30
- (D) 40

Q.114 The subject in which average marks were the highest is

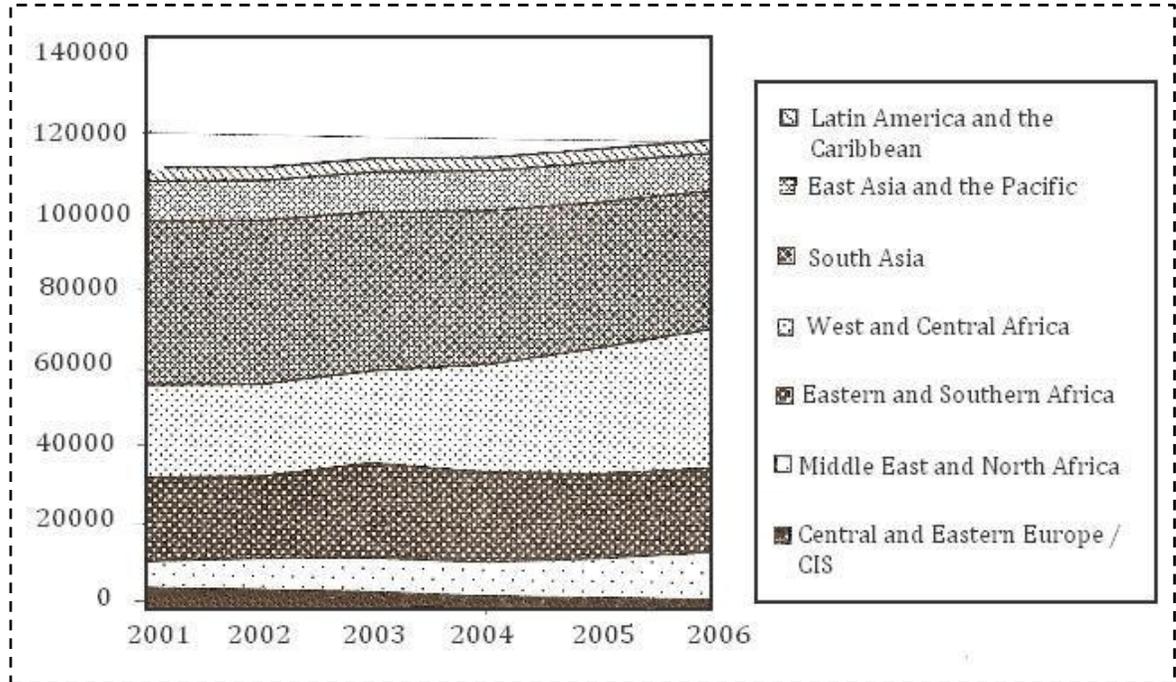
- (A) English
- (B) Science
- (C) Maths
- (D) Art

Q.115 If securing over 40% is the qualifying criteria for each subject, the ratio of students who qualify in Maths to those who qualify in Art is

- (A) 15 : 42
- (B) 1 : 1.1
- (C) 56 : 1
- (D) 1 : 61

Direction: Questions 116 - 120 are based on the following graph:

Number of Out of School Children in Different Regions of the World from 2001 to 2006



Q.116 Which of the following is FALSE:

- (A) The number of children out of school in West and Central Africa has increased over the years
- (B) The number of children out of school in South Asia has come down over the years
- (C) The number of children out of school in the Middle East and North Africa region has increased over the years
- (D) None of the above

Q.117 Which of the following is TRUE:

- (A) Over the years the largest number of out of school children have been in Eastern and South African region
- (B) The smallest number of out of school children have been in the East Asia and Pacific region over the years
- (C) Over the years, the largest number of out of school children has been in the South Asian region
- (D) None of the above

Q.118 The ratio of out of school children in South Asia to those in West and Central Africa from 2001 to 2006 has become

- (A) higher
- (B) approximately half
- (C) marginally lower
- (D) None of the above

Q.119 From 2001 to 2003, which of the following options CANNOT be deduced from the graph?

- (A) Overall, the out of school children have gone up
- (B) In West and Central Africa the numbers of out of school children have remained almost the same over three years
- (C) The largest number of out of school children are in South Asia
- (D) None of the above

Q.220 The total number of children who did not go to school

- (A) increased from 1,12,000 to 1,20,100 from 2001 to 2006
- (B) was over 120,000 in 2004
- (C) peaked in 2003
- (D) cannot be estimated from the above graph

END OF QUESTION PAPER