## GENERAL AWARENESS

1. As per the Economic Survey 2006-07 India's share in World Export has been-
(1) $0.5 \%$
(2) $0.75 \%$
(3) $1 \%$
(4) $1.25 \%$
(5) $1.5 \%$

## Solution:5

2. How much amount approximately the Govt. of Indian is planning to provide for Mid Day Meal Scheme? (As per Budget 2007-08)
(1) Rs. 5000 crores
(2) Rs. 6000 crores
(3) Rs. 7324 crores
(4) Rs. 8000 crores
(5) Rs. 8300 crores

## Solution:3

3. As per the figures given in the newspapers what is the approximate investment in various 'Special Economic Zones' till date in Indian?
(1) Rs. 20000 crores
(2) Rs. 25000 crores
(3) Rs. 30000 crores
(4) Rs. 35000 crores
(5) Rs. 43123 crores

## Solution:5

4. Who amongst the following is the author of the famous classical book "A Passage to India"?
(1) Mark Twain
(2) Nayantara Sehgal
(3) Nirad C. Choudhuri
(4) E. M. Foster
(5) None of these

## Solution:4

5. The Government of India has bought RBI's entire stake in the State Bank of India in about Rs. 35531 crores. What is the share of the RBI in total stake of the State Bank? About -
(1) $40 \%$
(2) 48
(3) $50 \%$
(4) $52 \%$
(5) $59.7 \%$

## Solution:5

6. Which of the following countries has decided to offer knighthood to Salman Rushdie ?
(1) France
(2) Italy
(3) Germany
(4) U.K.
(5) None of these

## Solution:4

7. As per Union Budget 2007-08 how much amount the Govt. Of India has provided Women Specific Schemes/Programmes for 2007-08? (Approximately)
(1) Rs. 7700 crores
(2) Rs. 8975 crores
(3) Rs. 9300 crores
(4) Rs. 10000 crores
(5) Rs. 10500 crores

## Solution:2

8. Prices of Iron ore In Global Market registered a substantial rise in last few months (24\%). This is attributed to the huge demand of the same in Global Market. Which
of the following is a major importer of the Iron ore?
(1) France
(2) South Africa
(3) Singapore
(4) Britain
(5) China

## Solution:4

9. Which of the following rates is not decided by the Reserve Bank of India ?
(1) Bank Rate
(2) Repo Rate
(3) Reverse Repo Rate
(4) Income Tax Rates
(5) All of these

## Solution:4

10. Who amongst the following actors won the award for the Best Actor in 8 "International Indian Film Academy Awards Ceremony held recently?
(1) Saif Ali Khan
(2) Sanjay Dutt
(3) Arshad Wars!
(4) Abhishek Bachchan
(5) Hrithik Roshan

## Solution:5

11. The Union Minister Mr. Mani Shankar Aiyar recently called a delegation from Thailand to visit Agartala, Guwahati and few other places in North-Fast to explore the possibilities of Thai investment there. Why was Mr. Mani Shankar involved in a meeting like this?
(1) He is the Minister for North-Eastern Region
(2) He is the Union Minister of Commerce and Industry.
(3) He is the next Chief Minister of Assam as a caretaker Government is functioning there till general election in January 2008.
(4) Aiyar was asked to mediate the talks between Thai Delegation and Ministry of Commerce and Industry as a deadlock was developed between the two.
(5) None of these

## Solution:4

12. Prime Minister of India recently unveiled an agricultural package during his visit to 53 rd Meeting of the National Development Council. What is the size of the package ?
(1) Rs. 10000 crores
(2) Rs. 15000 crores
(3) Rs. 20000 crores
(4) Rs. 25000 crores
(5) Rs. 30000 crores

## Solution:4

13. Rafal Nadal won the Fernch Open Men’s Singles Title 2007 after defeating who amongst the following ?
(1) Mark Knowles
(2) Mahesh Bhupathi
(3) Daniel Nestor
(4) Pavel Vizner
(5) Roger Federer

## Solution:5

14. Mr. Sharad Pawar while talking to a group of Ministers (GOM) recently mentioned that 'The Union and State Governments are preparing plans for the revival of sick mills". He also mentioned that, "There is not a single mill which has not lost some money in last few years." Mr. Sharad Pawar was talking about the revival of which of the following mills ?
(1) Textile Mills
(2) Sugar Mills
(3) Jute Mills
(4) Public Sector Companies
(5) None of these

## Solution:2

15. Which of the following States achieved $100 \%$ financial inclusion ? (Each and every family in the State has atleast one bank account).
(1) Delhi
(2) Maharashtra
(3) West Bengal
(4) Kerala
(5) None of these

## Solution:4

16. Who amongst the following has taken over as the Chairman of the 18 th Law Commission set-up recently ?
(1) Justice A. R. Lakshmanan
(2) Justice Bhagwan Das Rana
(3) Justice T. L. Venkatarama lyer
(4) Mrs. Suryakanta Patti
(5) None of these

## Solution: 1

17. India's Gross Domestic Product (GDP) grew at which of the following rates during during the year 2005-06? (Results were published in January 2007)
(1) $7 \%$
(2) $8.4 \%$
(3) $9 \%$
(4) $10 \%$
(5) $6 \%$

## Solution: 2

18. Who amongst the following was honoured with the Jawaharlal Nehru Award for International Understanding given away recently?
(1) Mr. Umaru Yar' Adua
(2) Mr. Luiz Mack) Lula da Silva
(3) Mr. Vladimir Putin
(4) Mr. Felipe Calderon
(5) None of these

## Solution:2

19. Japan PM Shinzo Abe came to office last year with huge support in his favour. But since last few months he is facing problems in his political survival. Which of the following actions taken by him does / do not enjoy support of the people of Japan? (Pick up the correct statements.)
A. Decision to postpone Parliamentary elections .
B. Failing to control inflation which has gone to the level of $12 \%$ an unusual phenomenon in the history of Japan
C. Decision to allow USA to make an Army Base in some of its islands where US will have its nuclear war-heads.
(1) Only B
(2) OnlyA
(3) Both A \& B
(4) Only C
(5) All A. B ,\& C

## Solution:5

20. As per the Economic Survey 2006-07 the foodgrain production may not touch the target fixed for the year. What is the target of the same set for the period ?
(1) 100 million tonnes
(2) 220 million tonnes
(3) 175 million tonnes
(4) 250 million tonnes
(5) 320 million tonnes

## Solution:2

21. Madhesi National Liberation Front (MNLF) is an organization active in which of the following countries ?
(1) Pakistan
(2) Myanmar
(3) Uganda
(4) Iran
(5) Nepal

## Solution: 5

22. Who amongst the following cricketers became the ninth Indian to claim 150 or more wickets?
(1) A. Kumble
(2) A. Agarkar
(3) S. Tendulkar
(4) Harbhajan
(5) None of these

## Solution:3

23. Which of the following sector banks brought its equity share (follow on public issue) for which the price was set as Rs. 940 per equity ?
(1) ICICI Bank
(2) Karnataka Bank
(3) UTI Bank
(4) HDFC Bank
(5) None of these

## Solution:1

24. "Rajapaksha threatens to dissolve Lanka Parliament" was the news in leading newspapers a few days back. Which of the following was the reason owing to which President Rajapaksha threatens to take such a drastic step ? ( Pick up the correct statements.)
(A) A number of MPs from Sri Lanka Freedom Party are defecting to join another party launched by another group of politicians.
(B) A group of politicians under the leadership of former President Chandrika Kumartunga is demanding the postponement of elections for the post of President due in the month of November 2007 so that Chandrika can come back from exile and contest of the same.
(C) Rajapaksa wants general public and also MPs to support his formula on Peace with LTTE which is not acceptable to most of the MPs.
(1) All A, B , \& C
(2) Only B
(3) Only C
(4) Both A \& B
(5) Only A

## Solution: 1

25. Who amongst the following returned to earth after a long 195 days stay in space ?
(1) Angie Brewer
(2) Mike Leinbach
(3) Shruti Vadera
(4) Sunita Williams
(5) None of these

## Solution:4

26. "European Leaders agree on treaty' was the news in leading newspapers in recent past. Which of the following was the treaty on which leaders were of diverse views ? (Pick up the correct statements.)
(A) The treaty was to make EURO Money a Universal currency for all financial/monetary transactions done by all the member countries w.e. f. April 2009.
(B) Treaty was to replace the defunct constitution of the European Union by a new one.
(C) Poland, one of the newest members of the Union was threatening to use its veto power if any change is done in the present set-up of 11-.e organization.
(1) OnlyA
(2) Only B
(3) Only C
(4) Both A \& B
(5) Both B \& C

## Solution:5

27. 'Dausa' which has been in news recently is a town in -
(1) Gujarat
(2) Madhya Pradesh
(3) Bihar
(4) Uttar Pradesh
(5) Rajasthan

## Solution:5

28. Who amongst the following is the author of the book 'Shame' published recently ?
(1) Chandar S. Sundaram
(2) Namita Gokhale
(3) Jaswindar Sanghara
(4) Anita Desai
(5) Salman Rushdie

## Solution: 5

29. As per the reports published by the 'Organization for Economic Co-operation and Development (OECD)' which of the following BRIC countries has generated maximum new jobs in the past few years?
(1) China
(2) Russia
(3) India
(4) Brazil
(5) None of these

## Solution:2

30. Mr. Digambar V. Kamat has taken over as which of the following a few months back ?
(1) Governor of Goa
(2) Chief Minister of Goa
(3) Governor of Meghalaya
(4) Governor of Rajasthan
(5) None of these

## Solution:2

31. Who amongst the following Indians was recently awarded King Charles II Medal by the UK?
(1) Dr. manmohan Singh
(2) Smt. Sonia Gandhi
(3) Dr. A.P.J. Abdul Kalam
(4) Smt. Vasundhara Raje
(5) None of these

## Solution:3

32. Miss Riyo Mori who was crowned as Miss Universe 2007 belongs to which of the following countries ?
(1) Japan
(2) U.S.A.
(3) China
(4) Singapore
(5) South Korea

## Solution: 1

33. Which of the following countries has decided to build a road to the base camp of Mt. Everest?
(1) India
(2) China
(3) Nepal
(4) Myanmar
(5) None of these

## Solution:2

34. 'Bharti Airtel', the largest mobile company of India recently joined the elite club of companies earning profits of more then US $\$ 1$ billion. What has been the net profit of the Company in the year 2006-07? About -
(1) Rs. 3500 crores
(2) Rs. 4000 crones
(3) Rs. 4250 crores
(4) Rs. 4450 crones
(5) Rs. 4500 crones

## Solution:3

35. 'SEBI' bans some companies for their role in \& o Scam', was the news in some major newspapers. What is the full form of ' $\mathrm{F} \& \mathrm{o}^{\prime}$ ?
(1) Fair \& Optimum
(2) Free \& Operational
(3) Future \& Operations
(4) Future \& Options
(5) None of these

## Solution:4

36. Which of the following African countries recently lanunched its communication satellite for the first time? (The satellite was launched from China.)
(1) Nigeria
(2) Kenya
(3) Zimbabwe
(4) Mauritius
(5) None of these

## Solution: 1

37. The President of Brazil was recently on ayisit to India where he signed several trade agreements. Which of the following has been the major area of trade
relations between the two countries ?
(1) Oil exploration
(2) Supply of agro products
(3) Production of nuclear fuel
(4) Import of electronic goods
(5) None of these

## Solution: 1

38. The World Islamic Economic Forum was held recently in
(1) Malaysia
(2) Kuwait
(3) Iran
(4) Brazil
(5) Indonesia

## Solution:1

39. In an important meeting of the National Development Council held in New Delhi the Prime Minister of India made a special mention of a particular sector of Indian economy which in his opinion was suffering from a "Technological Fatigue for lack of breakthrough in production." He was talking of which of the following sectors?
(1) Agriculture Sector
(2) Oil Sector
(3) Service Sector
(4) Defence Sector
(5) None of these

## Solution: 1

40. Which of the following was the major issue of discussion in the $0-8$ Summit held recently in Germany ?
(1) Subsidy to agro products
(2) Climate protection
(3) Financial Aid to Iraq
(4) Nuclear Technology and possibility of space war
(5) None of these

## Solution:2

## GENERAL ENGLISH

Directions (1-5): Read the following passage carefully and answer the questions given below it. Certain words are given in bold to help you to locate them while answering some of the questions.
Recent advances in science and technology have made it possible for geneticists to find out abnormalities in the unborn foetus and take remedial action to rectify some defects which would otherwise prove to be fatal to the child. Though genetic engineering is still at its infancy, scientists can now predict with greater accuracy a genetic disorder. It is not yet an exact science since they are not in a position to predict when exactly a genetic disorder will set in. While they have not yet been able to change the genetic order of the gene in germs, they are optimistic and are holding out that in the near future they might be successful in achieving this feat. They have, however, acquired the ability in manipulating tissue cells. However, genetic misinformation can sometimes be damaging for it may adversely affect people psychologically. Genetic information may lead to a tendency to brand some people as inferiors. Genetic information can therefore be abused and its application in deciding the sex of the foetus and its subsequent abortion is now hotly debated on ethical lines. But on this issue geneticists cannot be squarely blamed though this charge has often been levelled at them. It is mainly a societal problem. At persent genetic engineering is a costly process of detecting disorders but scientists hope to reduce the costs when technology becomes more advanced. This is why much progress in this area has been possible in scientifically advanced and rich countries like the U.S.A., U.K. and Japan. It remains to be seen if in the future this science will lead to the development of a race of supermen or will be able to obliterate disease from this world.

1. Which of the following is the same in meaning as the phrase 'holding out' as used in the passage?
(1) catching
(2) expounding
(3) sustaining
(4) restraining
(5) controlling

## Solution:2

2. According to the passage, the question of abortion is
(1) ignored
(2) hotly debated
(3) unanswered
(4) left to the scientists to decide
(5) already settled

## Solution:2

3. Which of the following is true regarding the reasons for progress in genetic engineering ?
(I) It has become popular to abort female foetuses.
(2) Human beings are extremely interested in heredity.
(3) Economically sound and scientifically advanced countries can provide the infrastructure for such research.
(4) Poor countries desperately need genetic information.
(5) None of these

## Solution:3

4. Which of the following is the same in meaning as the word 'obliterate' as used in the passage?
(1) wipe off
(2) eradicate
(3) give birth to
(4) wipe out
(5) very literate

## Solution:2

5. Which of the following is the opposite in meaning to the word 'charged' as used in the passage?
(1) calm
(2) disturbed
(3) discharged
(4) settled
(5) peaceful

## Solution:4

6. Which of the following is not true of the genetic engineering movement ?
(1) Possibility of abuse
(2) It is confronted by ethical problems.
(3) Increased tendency to manipulate gene cells
(4) Acquired ability to detect genetic disorders in unborn babies
(5) Acquired ability to manipulate tissue cells

## Solution:3

7. Which of the following is the same in meaning as the word 'feat' as used in the passage?
(1) process
(2) focus
(3) fact
(4) possibility
(5) goal

## Solution: 5

8. Why, according to the author, is genetic misinformation severely damaging?
(A) The cost involved is very high.
(B) Some people are unjustly branded as inferior.
(I) A only
(2) B only
(3) Both A and B
(4) Neither A nor B
(5) Either A or B

## Solution:2

9. In the passage, 'abused' means
(1) insulted
(2) talked about
(3) killed
(4) misused
(5) changed

## Solution:4

10. At present genetic engineering can rectify all genetic disorders, Is it ?
(1) Yes
(2) No
(3) It can do so only in some cases
(4) cannot be said
(5) None of these

## Solution:3

11. Which of the following, according to the author, are the shortcomings of genetics in becoming an exact science ?
(A) Technicians will not be able to determine the time when genetic disorder will set in .
(B) Technicians have not been able to manipulate germ cells.
(1) A only
(2) B only
(3) Both A and B
(4) Either A or B
(5) Neither A nor B

## Solution:3

12. Which of the following is the same in meaning as the word 'squarely' as used in the passage?
(1) rigidly
(2) firmly
(3) directly
(4) at right angle
(5) straight

## Solution:3

13. Which of the following is not true, according to the passage ?
(1) Society is not affected by the research in genetic engineering.
(2) Genetic engineers are not able to say some things with certainty.
(3) If genetic information is not properly handled, it will create problems.
(4) Manipulation of genes is presently done only in tissue cell.
(5) Scientists recognise the possibilities of abuse of information related to genetics.

## Solution:1

14. According to the author, the present state of knowledge about heredity has made geneticists
(1) introspective
(2) accusative
(3) arrogant
(4) optimistic
(5) reckless

## Solution:4

15. What is the tone of the author in the last sentence of the passage '?
(1) resignation
(2) cautious
(3) relief
(4) concern
(5) unconcern

Solution:2

Directions (16-20): Read each sentence to find out if there is any error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (5). (Ignore errors in punctuation, if any).
16. Governments and businesses must reduce (1)/ its own energy use (2)/ and promote conservation (3)/ to their citizens and employees. (4) / No error (5)

## Solution:2

17. If the allegations (I)/ made against him (2)/ are found to be true (3)/ he could face rigorous imprisonment. (4)/ No error (5)

## Solution:4

18. Having acquired some experience (I)/ she is no longer (2)/ one of those who believes (3)/ every explanation she is given. (4)/ No error (5)
19. On discovering that (1)/ it was a forgery (2) / he torn up the agreement (3)/ he had signed. (4)/ No error (5)

## Solution:3

20. With regard to implementation the (1)/details of the proposal (2)/ the committee
was divided (3)/ in its opinion. (4)/ No error (5)

## Solution: 1

Directions (21-30): Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the phrase printed in bold type to make the sentence grammatically correct ?If the sentence is correct mark (5) i. e. 'No correction required' as the answer
21. Many employees are hesitate to volunteer for assignments in a foreign country because of language and cultural issues.
(1) hesitated to volunteer
(2) hesitant to volunteer
(3) hesitating volunteer
(4) hesitatingly volunteer
(5) No correction required

## Solution: 2

22. Salaries in state owned enterprises today have to be in line on prevailing market rates in order to reduce turnover.
(1) been on line with
(2) to be aligned on
(3) been in line for
(4) to be in line with
(5) No correction required.

## Solution: 4

23. As a member of the Cabinet, Aiyar had the opportunity to oberve debates and see which they were resolved.
(1) about they being resolved
(2) that it was resolved
(3) to its resolution
(4) how they were resolved
(5) No correction required.

## Solution:4

24. The Board has inability to provide any proper strategy to outdo the competition.
(1) not being able to provide
(2) has been unable to provide
(3) cannot provide for
(4) is being unable to provide
(5) No correction required.

## Solution:3

25. Did the court not intervened the matter many students would have been denied admission.
(1) Because the court intervened in
(2) Until the court had intervened
(3) Had the court not intervened in
(4) If the court intervened between
(5) No correction required.

## Solution:3

26. Budget hotels are being set up across the country to provide travellers with accommodation at reasonable rates.
(1) are to be set in
(2) will be set up
(3) have been setting up around
(4) were set up through
(5) No correction required.

## Solution:5

27. Directly the meeting commenced then the Board called for the Chairman's resignation.
(1) No sooner had the meeting commenced than
(2) As soon as the meeting commenced when
(3) Hardly did the meeting commence
(4) Soon after the meeting commences that
(5) No correction required.

## Solution: 1

28. The Director said that he did not want to see neither of the student who had failed and ordered them to leave.
(1) none of the students
(2) one of the student
(3) each of the student
(4) any of the students
(5) No correction required.

## Solution: 4

29. He was determined in completing the project despite opposition from the union.
(1) on completing
(2) to complete
(3) for completion
(4) about completed
(5) No correction required.

## Solution:2

30. In his speech he failed to emphasize the only great reason why Government programmes have not benefited the poor.
(1) greatest reason why
(2) only greatest reason
(3) only greatest reason for
(4) great reason because
(5) No correction required.

## Solution:5

Directions (31-40) : In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each. five words have been suggested, one of which fills the blanks appropriately. Find out the appropriate word in each case.
Amid rumours of the government planning a crackdown on stock speculation, the Shanghai stock index (31) 8.8 per cent on February 27', its (32) one day drop in a decade. (33) usual for China's stock markets, investors in New York's equity markets saw this and sent the Dow Jones industrial index down more than 400 points. The drop in New York's index in turn (34) fear in markets across Asia the following day and suddenly stock indexes across the world(35). This chain reaction plainly (36) the increasingly (37) place that China now occupies in the minds of global investors. Its extraordinary economic run has been the key reason for (38) demand for everything from copper to cars much to the (39) of multinational and Chinese investors alike. But while investors are right about China's growing
economic importance to the world they are still confused about how to (40) a decline in Chinese stocks.
31. (1) plunged
(2) fallen
(3) triggered
(4) gained
(5) slips

## Solution: 1

32. (1) substantial
(2) significant
(3) dismal
(4) biggest
(5) peak

## Solution:4

33. (1) However
(2) Being
(3) Despite
(4) Because
(5) Though

## Solution:5

34. (1) heighten
(2) fuelled
(3) predicted
(4) ignored
(5) instil

## Solution:2

35. (1) stumble
(2) corrected
(3) tumbled
(4) stabilised
(5) dive

## Solution:3

36. (1) reflect
(2) strengthened
(3) caused
(4) demonstrated
(5) emphasis

## Solution:4

37. (1) privileged
(2) prominent
(3) tangible
(4) feasible
(5) worthwhile

## Solution:2

38. (1) variable
(2) risen
(3) fallen
(4) volatile
(5) soaring

## Solution: 5

39. (1) risk
(2) detriment
(3) benefit
(4) impact
(5) concern

## Solution:3

40. (1) interpret
(2) deal
(3) cope
(4) welcome
(5) indicate

## Solution: 1

## MARKETING APTITUDE / COMPUTER KNOWLEDGE

1. Consumer information sources are
(1) personal source and commercial source
(2) public source
(3) experiential source
(4) All of the three above
(5) Only (1) and (2)

## Solution:4

2. Zero-Based Budgeting (ZBB) means
(1) a tool for marketing cost analysis
(2) a tool for financial analysis
(3) each year, budgeting starts from a scratch
(4) a certain percentage of sales
(5) Only (1) and (2)

## Solution:3

3. The advantages of telephone-interview are -
(1) relatively low cost per interview
(2) good for reaching important people who are inaccessible
(3) securing co-operation which is not always possible
(4) All of these
(5) Only (1) and (2)

## Solution:4

4. The abbreviation ISP stands for
(1) International Spy Project
(2) Indian Social Planning
(3) Initial Service Provider
(4) Internet Service Provider
(5) None of these

## Solution:4

5. The best advertisement is -
(1) glow sign boards
(2) on Internet
(3) T.V. Media
(4) Print Media
(5) a satisfied customer

## Solution:5

6. According to product life cycle theory, the profit is maximum in :
(1) Developed Stage
(2) Early stage
(3) Matured Stage
(4) Declined Stage
(5) None of these

## Solution: 1

7. In banks ROA means -
(1) Rate of Allocation
(2) Return on Assets
(3) Return on Advances
(4) Ratio of Assets
(5) Only (2) and (3)

## Solution:2

8. In the context of globalization, BPO means -
(1) British petroleum Organisation
(2) British Passport Office
(3) Budgeting Process Orientation
(4) Business Process Orientation
(5) Business Process Outsourcing

## Solution:5

9. Which of the following expresses Maslow's Motivation Theory best ?
(1) Importance of motivation of customer development
(2) Why people are driven by particular need at particular times
(3) Where human needs are ar ranged in a hierarchy
(4) All of these
(5) Only (2) and (3)

Solution:4
10. SWOT analysis refers to
(1) marketing tool to understand constraints and potentials of self and competitor
(2) external environment analysis
(3) internal environment analysis
(4) strategic planning for selling product
(5) South-West organization for trade

## Solution:1

11. Which of the following forms the highest share in household savings in India ?
(1) Deposits
(2) Currency
(3) Share \& Debentures
(4) Real estate
(5) Physical asset

## Solution:5

12. This component is required to process data into information and consists of integrated circuits.
(1) Hard disk
(2) RAM
(3) CPU
(4) ROM
(5) None of these

## Solution:3

13. In today's changing banking scenario, aggressive promotion of business is necessary where the competition exists on
(1) branch up-keep
(2) expeditious service
(3) use of advanced digital technology
(4) delightful customer service
(5) All of these

## Solution:3

14. Which of the following means of communication is most popular media skill for propaganda among the people?
(1) Magazines
(2) Television
(3) Radio
(4) Outdoor exhibition
(5) None of these

## Solution:3

15. When you desire to promote a customer, who of the following is a customer as defined by a bank?
(1) A person regularly visiting bank
(2) A person regularly getting bank drafts issued
(4 A person regularly maintaining a loan/deposit account
(4) A person regularly getting bank drafts encashed
(5) A person functioning as agent for a person maintaining a deposit account

## Solution: 1

16. In banks, loans \& advances are considered as -
(1) assets
(2) liabilities
(3) resources
(4) cause of expenditure
(5) None of these

## Solution: 1

17. In the era of globalisation of business, $M \& A$ means -
(1) Money \& Assets
(2) Marketing \& Alliances
(3) Mergers \& Acquisitions
(4) Means \& Acquisition
(5) Markets \& Acquisitions

## Solution:3

18. I understand marketing as -
(1) Only selling
(2) meeting human \& social needs profitably
(3) to focus on customer
(4) to focus only on producing goods/service
(5) Only (2) and (3)

## Solution:5

19. For an economic organization like bank, MIS means -
(1) Middle Income Scheme
(2) Management Information System
(3) Management of Information \& Science
(4) Marketing Information System
(5) Only (2) and (3)

## Solution:2

20. The balance sheet of an organization gives information regarding -
(1) result of operations for a particular period
(2) the financial position as on a particular date
(3) the operating efficiency of the firm
(4) financial position during a particular period
(5) the operating health of the firm

## Solution:2

21. ESOP stands for -
(1) Efficient Service of Promises
(2) Employees Service Option Projects
(3) Effective System of Projects
(4) Employees Stock Option Plan
(5) Essential Security of Police

## Solution:4

22. One advantage of dial-up Internet access is -
(1) it utilizes broadband technologY
(2) it utilizes existing telephone service
(3) it uses a router for security
(4) modem speeds are very fast

## Solution:2

23. What is backup ?
(1) Adding more components to your network
(2) Protecting data by copying it from the original source to a diffemt destination
(3) Filtering old data from the new data
(4) Accessing data on tape
(5) None of these

## Solution:2

24. Network components are connected to the same cable in the. $\qquad$ topology.
(1) star
(2) ring
(3) bus
(4) mesh
(5) mixed

## Solution:1

25. Two or more computers connected to each other for sharing information form a-
(1) network
(2) router
(3) server
(4) tunnel
(5) pipeline

## Solution: 1

26. A computer checks the $\qquad$ of user names and passwords for a match before granting access.
(1) website
(2) network
(3) backup file
(4) database
(5) None of these

## Solution:4

27. Computers that are portable and convenient for users who travel are known as (1) super computers
(2) laptops
(3) mini computers
(4) file servers
(5) None of these

## Solution:2

28. What is the term for unsolicited e-mail ?
(1) newsgroup
(2) usenet
(3) backbone
(4) flaming
(5) spam

## Solution: 5

29. What type of program controls the various computer parts and allows the user to interact with the computer?
(1) Utility software
(2) Operating system
(3) Word processing software
(4) Database program
(5) None of these

## Solution: 1

30. Each cell in a Microsoft Office Excel document is referred to by its cell address, which is the -
(1) cell's column label
(2) cell's column label and worksheet tab name
(3) cell's row label
(4) cell's row and column labels
(5) None of these

## Solution:4

31. Which of the following is true'?
(1) byte is a single digit in a binary number
(2) bit represents a grouping of digital numbers
(3) eight-digit binary number is called a byte
(4) eight-digit binary number is called a bit
(5) None of these

## Solution:3

32. Office LANs that are spread geographically apart on a large scale can be connected using a corporate -
(1) CAN
(2) LAN
(3) DAN
(4) WAN
(5) TAN

## Solution:4

33. What is the process of copying software programs from secondary storage media to the hard disk called ?
(1) configuration
(2) download
(3) storage
(4) upload
(5) installation

## Solution:3

34. The code for a Web page is written using -
(1) a fifth generation language
(2) Win Zip
(3) Perl
(4) Hypertext Markup Language
(5) URL

## Solution:4

35. Small application programs that run on a Web page and may ensure a form is completed properly or provide animation are known as -
(1) flash
(2) spiders
(3) cookies
(4) applets
(5) sparks

## Solution:1

36. In a relational database, this is a data structure that organizes the information about a single topic into rows and columns.
(1) block
(2) record
(3) tuple
(4) table
(5) Command line interface

## Solution:4

37. The first computers were programmed using -
(1) assembly language
(2) machine language
(3) source coder
(4) object code
(5) spaghetti code

## Solution: 1

38. When the pointer is positioned on a -, it is shaped like a hand.
(1) grammar error
(2) hyperlink
(3) screen tip
(4) spelling error
(5) formatting error

## Solution:2

39. Which process checks to ensure the components of the computer are operating and connected properly ?
(1) Booting
(2) Processing
(3) Saving
(4) Editing

## Solution: 1

40. How can the 'user determine what programs are available on a cornputpr ?
(1) Checking the hard disk properties
(2) Viewing the installed programs during the booting process
(3) Checking the operating system for a list of installed programs
(4) Checking the existing files saved on the disk
(5) None of these

## Solution:4

## QUANTITATIVE APTITUDE

Directions (1-5) : What should come in place of question mark (?) in the following questions?

1. $94.5 \%$ of $650=$ ?
(1) 606.45
(2) 521.65
(3) 518.55
(4) 614.25
(5) None of these

## Solution:4

(4) $?=650 \times \frac{94.5}{100}=614.25$
2. $13^{13 \times} 13^{7}=$ ?
(1) $13^{6}$
(2) $13^{19}$
(3) $13^{20}$
(4) $13^{-6}$
(5) None of these

## Solution:3

(3) $?=13^{13} \times 13^{7}=13^{13+7}=13^{20}$
3. $13.33+33.31+331.13=$ ?
(1) 350.55
(2) 377.77
(3) 350.05
(4) 255.05
(5) None of these

## Solution:2

(2) $?=13.33+33.31+331.13$

$$
=377.77
$$

4. $464 \div(16 \times 2.32)=$ ?
(1) 12.5
(2) 14.5
(3) 10.5
(4) 8.5
(5) None of these

## Solution: 1

(1) $?=464 \div(16 \times 2.32)$

$$
=\frac{464}{16 \times 2.32}=12.5
$$

5. $178 \div 5 \div 0.5=$ ?
(1) 15.6
(2) 71.2
(3) 17.8
(4) 20.4
(5) None of these

## Solution:2

(2) $?=178 \div 5 \div 0.5$

$$
=\frac{178}{5 \times 0.5}=71.2
$$

6. A bus covers a distance of $2,924 \mathrm{kms}$. in 43 hours. What is the speed of the bus?
(1) 72 kmph
(2) 60 kmph
(3) 68 kmph
(4) Cannot be determined
(5) None of these

## Solution:3

(3) Speed of bus

$$
\begin{aligned}
& =\frac{\text { Distance covered }}{\text { Time taken }} \\
& =\frac{2924}{43}=68 \mathrm{kmph}
\end{aligned}
$$

7. If $(11)^{3}$ is subtracted from the square of a number, the answer so obtained is 7930 . What is the number?
(1) 36
(2) 28
(3) 21
(4) 48
(5) None of these

## Solution:3

(3) Let the number be $x$.

According to the question,
$x^{3}-(11)^{3}=7930$
$\Rightarrow x^{3}=7930+1331=9261$
$\Rightarrow x=\sqrt[3]{9261}$
$=\sqrt[3]{21 \times 21 \times 21}=21$
8. What should be the simple interest obtained on an amount of Rs. 5,760 at the rate of 6 p.c.p.a. after 3 years?
(1) Rs. 1,036.80
(2) Rs. 1,666.80
(3) Rs. 1,336.80
(4) Rs. 1,063.80
(5) None of these

## Solution: 1

(1) S.I. $=\frac{\text { Principal } \times \text { Time } \times \text { Rate }}{100}$

$$
=\frac{5760 \times 3 \times 6}{100}=\text { Rs. } 1036.80
$$

9. What is 333 times of 135 ?
(1) 46,323
(2) 43,623
(3) 43290
(4) 44955
(5) None of these

## Solution:4

(4) Product $=135 \times 333$
$=44955$
10. The product of two successive numbers is 8556 . What is the smaller number?
(1) 89
(2) 94
(3) 90
(4) 92
(5) None of these

## Solution:4

(4) Let the numbers be $x$ and $(x+1)$.
According to the question,
$x(x+1)=8556$
$\Rightarrow x(x+1)=92 \times 93 \Rightarrow x=92$.
Note : It is beneficial to use hit and trial method out of the given alternatives. As 8556 is the product whose unit's digit is 6 . Out of the given alternatives 92 should be the most preferred answer choice. Then find $92 \times 93=$ ?
11. Find the average of the following set of scores :

221, 231, 441, 359, 665, 525
(1) 399
(2) 428
(3) 407
(4) 415
(5) None of these

## Solution:3

(3) Average score

$$
\begin{gathered}
=\frac{221+231+441+359+665+525}{6} \\
=\frac{2442}{6}=407
\end{gathered}
$$

12. $45 \%$ of a number is 255.6 . What is $25 \%$ of that number?
(1) 162
(2) 132
(3) 152
(4) 142
(5) None of these

## Solution:4

(4) Let the number be $x$.
$\therefore x \times \frac{45}{100}=255.6$
$\Rightarrow x=\frac{255.6 \times 100}{45}=568$
$\therefore$ Required answer
$=568 \times \frac{25}{100}=142$
13. What is the least number to be added to 4321 to make it a perfect square?
(1) 32
(2) 34
(3) 36
(4) 38
(5) None of these

## Solution:5

(5)

| 6 | 4321 |
| :---: | :---: |
| 6 | 36 |
| 125 | 721 |
| 5 | 625 |
| 130 | 96 |

Clearly, $65^{2}<4321<66^{2}$
$\Rightarrow 65^{2}<4321<4356$
$\therefore$ Required number
$=4356-4321=35$
14. What would be the compound interest obtained on an amount of Rs. 3,000 at the rate of 8 p.c.p.a. after 2 years?
(1) Rs. 501.50
(2) Rs. 499.20
(3) Rs. 495
(4) Rs. 510
(5) None of these

## Solution:2

(2) Amount $=\mathrm{P}\left(1+\frac{\mathrm{R}}{100}\right)^{\mathrm{T}}$
$=3000\left(1+\frac{8}{100}\right)^{2}=3000\left(1+\frac{2}{25}\right)^{2}$
$=3000 \times \frac{27}{25} \times \frac{27}{25}=$ Rs. 3499.20
$\therefore$ C.I. $=$ Rs. $(3499.20-3000)$
$=$ Ps. 499.20
15. The owner of an electronics shop charges his customer $22 \%$ more than the cost price. If a customer paid Rs. 10,980 for a DVD player, then what was the cost price of the DVD player?
(1) Rs. 8,000
(2) Rs. 8,800
(3) Rs. 9,500
(4) Rs. 9,200
(5) None of these

## Solution: 5

(5) CP of DVD player

$$
\begin{aligned}
& =\frac{100}{(100+22)} \times S P \\
& =\frac{100}{122} \times 10980=\text { Rs. } 9000
\end{aligned}
$$

16. If $(78)^{2}$ is subtracted from the square of the number, the answer so obtained is 6,460 . What is the number?
(1) 109
(2) 111
(3) 113
(4) 115
(5) None of these

## Solution:5

(5) Let the number be $x$.

According to the question, $x^{2}-78^{2}=6460$
$\Rightarrow x^{2}=6460+6084 \Rightarrow x^{2}=12544$
$\Rightarrow x=\sqrt{12544}=112$
17. In an examination it is required to get $40 \%$ of the aggregate marks to pass. A student gets 261 marks and is declared failed by $4 \%$ marks. What are the maximum aggregate marks a student can get?
(1) 700
(2) 730
(3) 745
(4) 765
(5) None of these

## Solution:5

(5) The student gets $4 \%$ less than

40\%.
Clearly,
$36 \%$ of total marks $=261$
$\Rightarrow$ Total marks $=\frac{261 \times 100}{36}=725$
18. A. B, and C divide an amount of Rs. 4,200 amongst themselves in the ratio of $7: 8$ : 6 respectively. If an amount of Rs. 200 is added to each of their shares, what will be the new respective ratio of their shares of amount?
(1) $8: 9: 6$
(2) $7: 9: 5$
(3) $7: 8: 6$
(4) $8: 9: 7$
(5) None of these

## Solution:4

(4) Ratio of the amounts received
by $\mathrm{A}, \mathrm{B}$ and $\mathrm{C}=7: 8: 6$
Sum of the ratios $=7+8+6=21$
Sum received by :
$A \rightarrow \frac{7}{21} \times 4200=$ Rs. 1400
$B \rightarrow \frac{8}{21} \times 4200=$ Rs. 1600
C $\rightarrow \frac{6}{21} \times 4200=$ Rs. 1200
On adding Rs. 200 to the share of each one, the required ratio
$=1600: 1800: 1400=8: 9: 7$
19. Ms. Suchi deposits an amount of Rs. 24,000 to obtain a simple interest at the rate of 14 p.c.p.a. for 8 years. What total amount will Ms. Suchi get at the end of 8 years?
(1) Rs. 62080
(2) Rs. 28,000
(3) Rs. 50,880
(4) Rs. 26,88o
(5) None of these

## Solution:3

(3) S.I. $=\frac{24000 \times 8 \times 14}{100}$
= Rs. 26880
$\therefore$ Total amount
$=$ Rs. $(24000+26880)=$ Rs. 50880
20. The average of 5 consecutive even numbers $\mathrm{A}, \mathrm{B}, \mathrm{C} . \mathrm{D}$ and E is 52 . What is the product of $\mathrm{B} \& \mathrm{E}$ ?
(1) 2916
(2) 2988
(3) 3000
(4) 2800
(5) None of these

## Solution:4

(4) Let the five consecutive even numbers be $x, x+2, x+4, x+6$ and $x+8$ respectively.
According to the question,
$x+x+2+x+4+x+6+x+8$
$=5 \times 52 \Rightarrow 5 x+20=260$
$\Rightarrow 5 x$
$=260-20 \Rightarrow x=\frac{240}{5}=48$
$\therefore B=x+2=48+2=50$
$\mathrm{E}=x+8=48+8=56$
$\therefore \mathrm{B} \times \mathrm{E}=50 \times 56=\mathbf{2 8 0 0}$
21. The difference between $42 \%$ of a number and $28 \%$ of the same number is 210 .

What is $59 \%$ of that number?
(1) 630
(2) 885
(3) 420
(4) 900
(5) None of these

## Solution:2

(2) Let the number be $x$.

Difference of percentage
$=42-28=14 \%$
According to the question,
$\Rightarrow x=\frac{210 \times 100}{14}=1500$
$\therefore$ Required answer
$=\frac{59}{100} \times 1500=885$
22. What approximate value should come in place of the question mark (?) in the following question?
$4275 \div 496 \times(21)^{2}=$ ?
(1) 3795
(2) 3800
(3) 3810
(4) 3875
(5) 3995

## Solution:2

$$
\text { (2) } ?=4275 \div 496 \times 21^{2}
$$

$$
=\frac{4275 \times(21)^{2}}{496}
$$

$$
\approx \frac{4275 \times 441}{495} \approx 3800
$$

23. A canteen requires 112 kgs . of wheat for a week. How many kgs. of wheat will it require for 69 days?
(1) 1.204 kgs .
(2) $1,401 \mathrm{kgs}$.
(3) $1,104 \mathrm{kgs}$.
(4) $1,014 \mathrm{kgs}$.

## Solution:3

(3) $\because$ Requirement of wheat for 7
days $=112 \mathrm{~kg}$
$\therefore$ Requirement of wheat for 1 day
$=\frac{112}{7} \mathrm{~kg}$
The requirement of wheat for 69
days $=\frac{112}{7} \times 69=1104 \mathrm{~kg}$
24. If an amount of Rs. 41,910 is distributed equally amongst 22 persons, how much amount would each person get?
(1) Rs. 1,905
(2) Rs. 2,000
(3) Rs. 1,885
(4) Rs. 2,105
(5) None of these

## Solution: 1

(1) Amount received by each per-
$\operatorname{son}=\frac{41910}{22}=$ Rs. 1905
25. The cost of 4 cell-phones and 7 digital cameras is Rs. $1,25,627$. What is the cost of 8 cell-phones and 14 digital cameras?
(1) Rs. 2,51,254
(2) Rs. 2,52,627
(3) Rs. 2,25,524
(4) Cannot be determined
(5) None of these

## Solution: 1

(1) $\because 4$ cell phones +7 cameras
= Rs. 125627
$\therefore 8$ cell phones +14 cameras
$=$ Rs. $(2 \times 125627)=$ Rs. 251254

Direction (26-30) : Each of the questions below consists of a question and two statements numbered I and II are given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and :
Give answer (1): If the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
Give answer (2): If the data in Statement I1 alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
Give answer (3): If the data in Statement I alone or in Statement II alone are sufficient to answer the question.
Give answer (4): If the data in both the Statements I and II are not sufficient to answer the question.
Give answer (5): If the data in both the Statements I and II together are necessary to answer the question.
26. What is the area of the circle?
I. Perimeter of the circle is 88 cms .
II. Diameter of the circle is 28 cms .

## Solution:3

(3) From statement I,

Circumference of circle $=88 \mathrm{~cm}$
$\Rightarrow 2 \pi r=88 \mathrm{~cm}$
Thus we can find out $r$ (radius) and hence area of the circle by using the formula $\pi r^{2}$.
From statement II,
Diameter of circle $=28 \mathrm{~cm}$
$\therefore$ Radius $=14 \mathrm{~cm}$
$\therefore$ Area of circle $=\pi r^{2}$
Find the required area.
27. What is the rate of interest?
I. Simple interest accrued on an amount of Rs. 25,000 in two years is less than the compound interest for the same period by Rs. 250.
II. Simple interest accrued in 10 years is equal to the principal.

## Solution:3

(3) From statement II,

If principal $=$ Rs. $x$, then interest
after 10 years $=$ Rs. $x$
$\therefore x=\frac{x \times \text { Rate } \times 10}{100}$
$\Rightarrow$ Rate $=10 \%$ p.a.
From statement I,
Principal $=\frac{\text { Difference } \times(100)^{2}}{(\text { Rate })^{2}}$.
$\Rightarrow 25000=\frac{250 \times(100)^{2}}{(\text { Rate })^{2}}$
$\Rightarrow(\text { Rate })^{2}=\frac{250 \times 10000}{25000}=100$.
$\Rightarrow$ Rate $=\sqrt{100}=10 \%$ p.a.
28. What is the number of trees planted in the field in rows and columns?
I. Number of columns is more than the number of rows by 4.
II. Number of trees in each column is an even number.

## Solution:4

(4) The data given in both statements are inadequate.
29. What is the area of the right-angled triangle?
I. Height of the triangle is three-fourth of the base.
II. Hypotenuse of the triangle is 5 metres.

## Solution: 5

(5) From statements I and II,

Let the base of the triangle be $x$ meter.
$\therefore$ Height $=\frac{3 x}{4}$ meter $\quad \Rightarrow \sqrt{x^{2}+\left(\frac{3 x}{4}\right)^{2}}=5 \Rightarrow \sqrt{x^{2}+\frac{9 x^{2}}{16}}=5$
$\sqrt{\text { Base }^{2}+\text { Height }^{2}}=$ Hypotenuse
$\Rightarrow \sqrt{\frac{16 x^{2}+9 x^{2}}{16}}=5 \Rightarrow \sqrt{\frac{25 x^{2}}{16}}=5$
$\Rightarrow \frac{\bar{a} x}{4}=5 \quad \Rightarrow x=\frac{4 \times 5}{5}=4$
$\therefore$ Base $=4$ meter
and height $=\frac{3 \times 4}{4}=3$ meter
$\therefore$ Area of right angled triangle
$=\frac{1}{2} \times 4 \times 3=6 \mathrm{~m}^{2}$
30. What is the father's present age?
I. Father's present age is five times the son's present age.
II. Five years ago the father's age was fifteen times the son's age that time.

## Solution:5

(5) From statement I,

Let the present age of son
$=x$ years
$\therefore$ Present age of father
$=5 x$ years
From statements I and II,
$5 x-5=15(x-5)$
$\Rightarrow 5 x-5=15 x-75$
$\Rightarrow 15 x-5 x=75-5$
$\Rightarrow 10 x=70 \Rightarrow x=\frac{70}{10}=7$
$\therefore$ Father's present age $=5 \times 7$
$=35$ years

Directions (31-35) : Study the following graph carefully to answer these questions :

## Profit earned (in Crore Rs.) by Seven Companies during 2003-04


31. What is the ratio between the profit earned by Company A in 2004 and the profit earned by Company B in 2003 respectively?
(1) $4: 3$
(2) $3: 2$
(3) $3: 4$
(4) $2: 3$
(5) None of these

## Solution:5

(5) Profit earned by company A in $2004=$ Rs. 40 crore
Profit earned by company B in
$2003=$ Rs. 40 crore
$\therefore$ Required ratio $=40: 40=1: 1$
32. What is the difference (in crore Rs.) between the total profit earned by companies E, F and G together in 2003 and the total profit earned by these companies in 2004?
(1) 70
(2) 75
(3) 78
(4) 82
(5) None of these

## Solution:5

(5) Profit earned by companies
$\mathrm{E}, \mathrm{F}$ and G in :
Year $2003 \rightarrow 50+80+60$
$=$ Rs. 190 crore
Year $2004 \rightarrow 40+20+50$
= Rs. 110 crore
Required difference
$=190-110=$ Rs. 80 crore
33. What is the ratio between the total profit earned by company C in 2003 and 2004 together and the total profit earned by company E in these two years respectively?
(1) $11: 9$
(2) $9: 10$
(3) $10: 11$
(4) $11: 10$
(5) None of these

## Solution: 1

(1) Profit earned by company C in 2003 and 2004.
$=50+60=$ Rs. 110 crore
Profit earned by company $E$ in
2003 and 2004
$=40+50=$ Rs. 90 crore
$\therefore$ Required ratio
= $110: 90=11: 9$
34. What was the average profit earned by all the companies in 2003 ? (In crore Rs. rounded-off to two digits after decimal).
(1) 52.75
(2) 53.86
(3) 52.86
(4) 53.75
(5) None of these

## Solution:3

(3) Required average profit

$$
\begin{aligned}
& =\text { Rs. }\left(\frac{20+40+50+70+50+80+60}{7}\right) \text { crore } \\
& \quad=\frac{370}{7}=\text { Rs. } 52.86 \text { crore }
\end{aligned}
$$

35. Profit earned by company B in 2004 is what per cent of the profit earned by the same company in 2003?
(1) 133.33
(2) 75
(3) 67.66
(4) 75.25
(5) None of these

## Solution:2

Earned profit by company B in $2003=$ Rs. 40 crore
(2) Earned profit by company B $\therefore$ Required percentage in $2004=$ Rs. 30 crore

$$
=\frac{30}{40} \times 100=75
$$

Directions (36-40) : Study the following table carefully to answer these questions :
Table giving percentage of unemployed male and female youth and the total population for different states in 2005 and 2006.

|  | 2005 |  |  | 2006 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{T}$ | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{T}$ |
| A | 12 | 15 | 32 | 7 | 8 | 35 |
| B | 8 | 7 | 18 | 10 | 9 | 20 |
| C | 9 | 10 | 28 | 10 | 12 | 34 |
| D | 10 | 6 | 24 | 8 | 8 | 30 |
| E | 6 | 8 | 30 | 7 | 6 | 32 |
| F | 7 | 5 | 28 | 8 | 7 | 35 |
| M = Percentage of unemployed Male <br> youth over total population <br> F = Percentage of unemployed $\mathbf{F e}$ <br> male youth over total population <br> m |  |  |  |  |  |  |
| Total population of the state in <br> lakhs |  |  |  |  |  |  |

36. What was the total number of unemployed youths in State A in 2006?
(1) $2,20,000$
(2) $3,25,000$
(3) $5,20,000$
(4) $5,25,000$
(5) None of these

## Solution:4

(4) Required number
$=(7+8) \%$ of total population
$=\frac{15}{100} \times 35$ lakh
$=5.25$ lakh $=525000$
37. How many female youths were unemployed in State D in 2005?
(1) 14,400
(2) 1,44.000
(3) $1,40,000$
(4) 14,000
(5) None of these

## Solution:2

(2) Number of unemployed female youths in State D in 2005
$=\frac{6 \times 24}{100}$ lakh $=1.44$ lakh $=144000$
38. Number of unemployed male youths in State A in 2005 was what per cent of the number of unemployed female youths in State E in 2006?
(1) 66
(2) 50
(3) 200
(4) 133
(5) None of these

## Solution:3

(3) Number of unemployed male youths in State A in 2005
$=\frac{12 \times 32}{100}=3.84$ lakh
Number of unemployed female
youths in State E in 2006
$=\frac{6 \times 32}{100}=1.92$ lakh
$\therefore$ Required percentage
$=\frac{3.84}{1.92} \times 100=200$
39. What was the difference between the number of unemployed male youths in State Fin 2005 and the number of unemployed male youths in State A in 2006?
(1) 70.000
(2) 45,000
(3) 68,000
(4) 65,000
(5) None of these

## Solution:5

(5) Number of unemployed male youths in State F in 2005
$=\frac{7 \times 28}{100}=1.96$ lakh
Number of unemployed youths in
State A in 2006
$=\frac{7 \times 35}{100}=2.45$ lakh
$\therefore$ Required difference
$=(2.45-1.96)$ lakh
$=0.49$ lakh $=49000$
40. What was the respective ratio between unemployed male youths in State D in 2005 and the unemployed male youths in State D in 2006?
(1) $1: 1$
(2) $2: 3$
(3) $3: 2$
(4) $4: 5$
(5) None of these

## Solution: 1

(1) Number of unemployed youths in State D in

Year $2005 \rightarrow \frac{10 \times 24}{100}=2.4$ lakh
Year $2006 \rightarrow \frac{8 \times 30}{100}=2.4$ lakh
Reauired ratio $=2.4: 2.4=1: 1$

## REASONING

1. How many meaningful English words can be formed form the letters 'ACER' using each letter only once in each word?
(1) None
(2) One
(3) Two
(4) Three
(5) More than three

## Solution:4

(4) Meaningful words
$\Rightarrow$ RACE, CARE, ACRE,
2. If in the word FLOURISH, all the vowels are first arranged alphabetically and then all the consonants are arranged alphabetically and then all the vowels are replaced by the previous letter and all the consonants are replaced by the next letter from English alphabet, which letter will be third from the right end ?
(1) I
(2) S
(3) M
(4) V
(5) None of these

## Solution:3

(3) According to question

3. If ' $A \times B$ ' means ' $B$ ' is father of ' $A$ ', ' $A+B$ ' means ' $A$ is wife of $B$ ' and ' $A \div B$ ' means ' $A$ is brother of $B$ ', then what is the relation of $J$ with ' $J+H \div R \times L$ ?
(1) Daughter
(2) Daughter-in- law
(3) Sister -in- law
(4) Cannot be determined
(5) None of these

## Solution:2

.(2)

$J$, is wife of $H$, the brother of $R$.
$L$ is father of $H$ and $R$.
Therefore, $J$ is daughter -in-law of
L.
4. In a row of children facing North, Ritesh is twelfth from the left end. Sudhir who is twenty-second from the right end is fourth to the right of Ritesh. Total how many children are there in the row?
(1) 35
(2) 36
(3) 37
(4) 34
(5) None of these

## Solution:3



Total number of children in
the row
$=16+22-1=37$
5. In a certain code DUPLICATE is written as MRVFJFVBE. How is CARTOUCHE written in that code?
(1) UTBEPWDJF
(2) UTBEQFJDW
(3) UTBEQFJDW
(4) UTBEPFJDW
(5) None of these

## Solution:4

(4)


Similarly,

6. Four of the following five are alike in a certain way on the basis of their positions in English alphabet and so form a group. Which is the one that does not belong to that group?
(1) HJG
(2) PQN
(3) DEB
(4) TUR
(5) KLI

## Solution:1

(1) $\begin{array}{ll}\mathrm{H} & +2 \\ \mathrm{P} \xrightarrow{+1} & \mathrm{~J} \xrightarrow{-3} \mathrm{C} \\ \mathrm{C} & -3 \\ \mathrm{~N}\end{array} \mathrm{Q} \xrightarrow{+3} \mathrm{C}$
$\mathrm{D} \xrightarrow{+1} \mathrm{E} \xrightarrow{-3} \mathrm{~B}$
$\mathrm{T} \xrightarrow{+1} \mathrm{U} \xrightarrow{-3} \mathrm{R}$
$\mathrm{K} \xrightarrow{+1} \mathrm{~L} \xrightarrow{-3} \mathrm{I}$
7. How many such pairs of letters are there in the word PHYSICAL each of which has as many letters between them in the word as they have in the English alphabet
(1) None
(2) One
(3) Two
(4) Three
(5) More than three

## Solution:3

$\begin{array}{lllllllll}\text { '.(3) } & 16 & 8 & 25 & 19 & 9 & 3 & 1 & 12\end{array}$

8. In the following set of numbers, if ' 1 ' is added to the last digit and then the order of digits is reversed, which number will be fourth if arranged in ascending order ?
$\begin{array}{lllll}567 & 284 & 696 & 865 & 738\end{array}$
(1) 567
(2) 284
(3) 696
(4) 865
(5) 738

## Solution: 1

.(1) $567 \Rightarrow 568 \Rightarrow 865$
$284 \Rightarrow 285 \Rightarrow 582$
$696 \Rightarrow 697 \Rightarrow 796$
$865 \Rightarrow 866 \Rightarrow 668$
$738 \Rightarrow 739 \Rightarrow 937$
$582<668<796<865<937$
9. In a certain code RAIL is written as 5796 and TAPE is written as 3748 . How is PAIR written in that code ?
(1) 4795
(2) 4785
(3) 3795
(4) 8795
(5) None of these

## Solution: 1

(1) $\begin{array}{llllllll}\mathrm{R} & \mathrm{A} & \mathrm{I} & \mathrm{L} & \mathrm{T} & \mathrm{A} & \mathrm{P} & \mathrm{F} \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & \downarrow\end{array}$
$\begin{array}{llllllll}5 & 7 & 9 & 6 & 3 & 7 & 4 & 8\end{array}$

Therefore, P A I R


4795
10. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group ?
(1) Rose
(2) Jasmine
(3) Hibiscus
(4) Marigold
(5) Lotus
(5) Lotus is grown in water (Mud).

Directions (11-15): In each of the questions below are given four statements followed by three conclusions numbered I, II \& III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

## 11. Statements :

All chillies are garlics.
Some garlics are onions.
All onions are potatoes.
No potato is ginger.

## Conclusions :

I : No onion is ginger.
II : Some garlics are potatoes.
III : Some chillies are potatoes.
(I) Only I follows
(2) Only II follows
(3) Only I \& II follow
(4) Only I \& III follow
(5) All follow

## Solution:3

(3) First and third Premises are Universal Affirmative (A-type).

Second Premise is Particular Affirmative (I- type).
Fourh Premise is Universal
Negative ( E - type).
Some garics are onions.


All onions are potatoes
I + A $\Rightarrow$ I- type Conclusion.
"Some garlics are potatoes."
This is Conclusion II.
All onions are potatoes.


No potato is ginger.
$\mathrm{A}+\mathrm{E} \Rightarrow \mathrm{E}$ - type Conclusion
"No onion is ginger."

## 12. Statements :

Some keys are locks.
Some locks are numbers.
All numbers are letters.
All letters are words.

## Conclusions :

I : Some locks are letters.
II : Some words are numbers
III : All numbers are words.
(1) Only I \& II follows
(2) Only II \& III follow
(3) Only I \& III follow
(4) Only I \& either Ii or Ill follow
(5) All follow

## Solution:5

(5) First and second Premises are

Partucular Affirmative (1-type).
Third and fourth Premises are
Universal Affirmative (A-type).
Some locks are numbers.


All numbers are letters.
I $+\mathrm{A} \Rightarrow$ I- type Conclusion.
"Some locks are letters."
This is Conclusion I.
Some locks are letters.


All letters are words.
I $+\mathrm{A} \Rightarrow$ I- type Conclusion.
"Some locks are words."
All numbers are letters.


All letters are words.
$\mathrm{A}+\mathrm{A} \Rightarrow \mathrm{A}$ - type Conclusion.
"All numbers are words."
This is Conclusion III.
Conclusion II is Converse of this Conclusion.

## 13. Statements :

Some windows are doors.
All doors are walls.
No wall is roof.
All roofs are shelters.

## Conclusions :

1 : Some windows are walls.
II : No wall is shelter
III : No door is shelter.
(1) None follows
(2) Only II and 111 follow
(3) Only I and III follow
(4) Only I follows
(5) None of these

## Solution:4

(4) First Premise is Particular Affirmative (I- type).
Second and fourth Premises are Universal Affirmative (Atype).
Third Premise is Universal Negative (E- type).

Some windows are doors.


All doors are walls.
$\mathrm{I}+\mathrm{A}=\mathrm{I}-$ type Conclusion.
"Some windows are walls."
This is Conclusion I.
All doors are walls.


Nowall is roof.
$A+E \Rightarrow E$-type Conclusion.
"No door is roof."
No wall is roof.


All roofs are shelters.
$\mathrm{E}+\mathrm{A} \Rightarrow \mathrm{O}_{1}$ - type Conclusion.
"Some shelters are not doors."
No wall is roof.


All roofs are shelters.
"Some shelters are not walls."

All bottles are jars.

Some jars are pots.
All pots are taps.
No tap is tank.

## Conclusions

I : No pot is tank.
II : Some jars are tanks.
III : Some bottles are pots.
(1) Only I \& III follow
(2) Only I \& II follow
(3) Only II \& III follow
(4) All follow
(5) None of these

## Solution: 5

.(5) First and third Premises are Universal Affirmative (A-type). Second Premise is Particular Affirmative (I-type).
Fouth Premise is Universal
Negative (E-type).
Some jars are pots.


All pots are taps.
$\mathrm{I}+\mathrm{A} \Rightarrow \mathrm{I}$ - type Conclusion.
"Some jars are taps."
All pots are taps.


No tap is tank.
$\mathrm{A}+\mathrm{E}=\mathrm{E}$ - type Conclusion.
"No pot is tank."
This is Conclusion I.

## 15. Statements :

Some fish are crocodiles.
Some crocodiles are snakes.
No snake is tortoise.

All tortoises are frogs.
Conclusions :
I : No snake is frog.
II : Some snakes are fish.
III : Some fish are frogs,
(1) None follows
(2) Only I \& II follow
(3) Only II \& III follow
(4) Only I \& III follow
(5) None of these

## Solution: 1

(1) First and second Premises are Particular Affirmative (I-type). Third Premise is Universal Negative (E-type). Fourth Premise is Universal Affirmative (A-type). Some crocodiles are snakes.


No snake is tortoise. $\mathrm{I}+\mathrm{E} \Rightarrow \mathrm{O}$ - type Conclusion. "Some crocodiles are not tortoises."

No snake is tortoise.


All tortoises are frogs.
$\mathrm{E}+\mathrm{A}=\mathrm{O}_{1}$-type Conclusion.
"Some frogs are not snakes."

Directions (16-20) : In each of these questions, a group of digits is given followed by four combinations of letters and symbols numbered (1), (2), (3) and (4). The group of digits is to be coded as per the scheme and conditions given below. The serial number of the combination correctly represents the group do digits is your answer. If mine of the four combinations is correct, your answer is (5) i.e. 'None of these'.

| Digits | 5 | 8 | 4 | 3 | 6 | 2 | 9 | 0 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Letter/Symbol |  |  |  |  |  |  |  |  |  |
| Code |  |  |  |  |  |  |  |  |  |

## Conditions :

(i) If the first as well as the last digit is odd, both are to be coded as (C).
(ii) If the first as well as the last digit is even, their codes arc to be swapped.
(iii) If ' $o$ ' is the last digit, it to be coded as *.
16. 270514(1) © $\%$ LTK
(2) $\$ \%$ LTKQ
(3) Q\%LTK\$
(4) $\$ \%^{*}$ TKQ
(5) None of these

## Solution:2

(2) $\begin{array}{llllll}2 & 7 & 0 & 5 & 1 & 4 \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & \downarrow\end{array}$
\$ \% L T K Q
Condition (ii) is applicable.
17. 364279
(1) © $\mathrm{H} \$ \mathrm{Q}$ © $($
(2) \#H\$Q\%@
(3) @H\$Q\%\#
(4) \# H\$Q\%(C
(5) None of these

## Solution: 1

(1) $\begin{array}{llllll}3 & 6 & 4 & 2 & 7 & 9 \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & \downarrow\end{array}$
(c) $\mathrm{H} \$ \mathrm{Q} \%$ ©

Condition (i) is applicable.
18. 875306
(1) J\%T \#LH
(2) H\%T \# LH
(3) H\%T \#LJ
(4) J\%T\#LJ
(5) None of these

## Solution:3

(3) $\begin{array}{llllll}8 & 7 & 5 & 3 & 0 & 6 \\ & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ & \downarrow\end{array}$

H \% T \# L J
'Condition (ii) is applicable.
19. 592476
(1) $\mathrm{H} @ \mathrm{Q} \$ \% \mathrm{~T}$
(2) © @Q\$\%T
(3) H@Q\$\%
(4) ©@Q\$\%
(5) None of these

## Solution:5

(5) $\begin{array}{lllllll}5 & 9 & 2 & 4 & 7 & 6\end{array}$

20. 468910
(1) \$HJ@KL
(2) LHJ@K\$
(3) * $\mathrm{HJ} @ \mathrm{~K} \$$
(4) \$HJ@K*
(5) None of these

## Solution:4

(4) $\begin{array}{lllllll}4 & 6 & 8 & 9 & 1 & 0\end{array}$

\$ H J @ K $\star$
Condition (iii) is applicable.

Directions (21-25) : These questions are based on the following information :
' A @ B ' means ' A is added to B '.
' A * B ' means ' A is multiplied by B '
'A \# B' means 'A is divided By B '
' $A$ \$ $B$ ' means ' $B$ is subtracted from $A$ '
In each question, some information is given. You have to find out which expression correctly represents the statement.
21. Total age of 12 boys is ' X and the total age of 13 girls is ' Y . What is the average age
(A) of all the boys and girls together ?
(1) $\mathrm{A}=(\mathrm{X} @ Y)$ \#25
(2) $A=(X \$ Y) \# 25$
(3) $A=(X @ Y){ }^{*} 25$
(4) Connot be determined
(5) None of these

## Solution: 1

(1) Average age of all the boys and

$$
\begin{aligned}
& \text { girls }(\mathrm{A})=\frac{x+y}{25} \\
& \Rightarrow \mathrm{~A}=(x @ y) \# 25
\end{aligned}
$$

22. Population of state $M(\mathrm{P} 1)$ is less than half of population of state $N(\mathrm{P} 2)$ by 1,50,000.
(1) $\mathrm{P} 2=\left(\mathrm{P}_{1} \# 2\right) \$ 1,50,000$
(2) $\mathrm{PI}=(\mathrm{P} 2$ \#2) @ $1,50,000$
(3) $\mathrm{PI}=(\mathrm{P} 2 \# 2) \$ 1,50,000$
(4) $\mathrm{P} 2=(\mathrm{P} 1$ \#2) @ $1,50,000$
(5) None of these

## Solution:3

(3) $\mathrm{P}_{1}=\frac{\mathrm{P}_{2}}{2}-1,50,000$

$$
\Rightarrow P_{1}=\left(P_{2} \# 2\right) \$ 1.50,000
$$

23. Number of boys (B) in a class is equal to one-fourth of three times the number of girls (G) in the class.
(1) $\mathrm{B}=(3 \# \mathrm{G}) * 4$
(2) $\mathrm{B}=\left(3^{*} \mathrm{G}\right) @ 4$
(3) $13=(3 * G) \# 4$
(4) $\mathrm{B}=(3 \$ \mathrm{G}) \# 4$
(5) None of these

## Solution:3

(3) $\mathrm{B}=\frac{1}{4} \times 3 \mathrm{G}=\frac{3 \mathrm{G}}{4}$

$$
\Rightarrow B=(3 \star G) \# 4
$$

24. Salary of Mr. X (S1) is more than $40 \%$ of Mr. Y's salary (S2) by Rs. 8,000
(1) $\mathrm{H}=(100 \# 85) * \mathrm{M}$
(2) $\mathrm{H}=85$ * 100 * M
(3) $\mathrm{H}=85$ \# 100 \# M
(4) $\mathrm{H}=(85$ \#100) * M
(5) None of these

## Solution:2

(2) $\mathrm{S}_{1}=\frac{40}{100} \times \mathrm{S}_{2}+8,000$
$\Rightarrow S_{1}=\left[S_{2} \star(40 \# 100)\right]$ © 8,000
25. Marks obtained by Sujit in History (H) are $85 \%$ of his marks obtained in Science (M).
(1) $\mathrm{H}=(100 \# 85) * \mathrm{M}$
(2) $\mathrm{H}=85$ * 100 * M
(3) $\mathrm{H}=85$ \# 100 \# M
(4) $\mathrm{H}=\left(85\right.$ \#100) ${ }^{*} \mathrm{M}$
(5) None of these

## Solution:4

(4) $\mathrm{H}=\frac{85}{100} \times \mathrm{M}$

$$
\Rightarrow \mathrm{H}=(85 \# 100) \star \mathrm{M}
$$

(146-150) :
P (6) $\mathrm{G} \Rightarrow \mathrm{P} \geq \mathrm{Q}$
$P \# G \Rightarrow P \leq G$
$P S Q \Rightarrow P<Q$
P © $\mathrm{Q} \Rightarrow \mathrm{P}>\mathrm{Q}$
$P \% Q \Rightarrow P=Q$

Directions (26-30) : In the following questions, the symbols @, \#, \$, © and \% are used with different meanings as follows :
' P @ Q ' menas ' P is not smaller than Q ,
' P \# menas ${ }^{`} \mathrm{P}$ is not greater than Q '.
' $P \$ 9^{\prime}$ menas ` $P$ is neither greater than nor equal to $Q$ '.
' $P$ © $Q$ ' menas ' $P$ is neither smaller than nor equal to $Q$ '.
' $\mathrm{P} \%$ menas ' P is neither greater than nor smaller than Q '.
Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is / are definitely true ?
Give answer (1) if only Conclusion I is true.
Give answer (2) if only Conclusion II is true.
Give answer (3) if either Conclusion I or II is true.
Give answer (4) if neither Conclusion I nor II is true.
Give answer (5) if both Conclusion I and II are true.
26. Statements :

V \$ W, W @ T, T \# H
Conclusions:
I: V © T
II. : H \% W

Solution:4
(4) V \$ W $\Rightarrow \mathrm{V}<\mathrm{W}$

W (1) $\mathrm{T} \Rightarrow \mathrm{W} \geq \mathrm{T}$
T \# H $\Rightarrow \mathrm{T} \leq \mathrm{H}$
Therefore, $\mathrm{V}<\mathrm{W} \geq \mathrm{T} \leq \mathrm{H}$
Conclusions
I. V (c) $\mathrm{T} \Rightarrow \mathrm{V}>\mathrm{T}$ : Not True
II. $\mathrm{H} \% \mathrm{~W} \Rightarrow \mathrm{H}=$ Not True
27. Statements :

H © M. M@E, E \$ C
Conclusions:
I: C © M
II : H © E

## Solution:2

.(2) H © $\mathrm{M} \Rightarrow \mathrm{H}>\mathrm{M}$
M (1) $\mathrm{E} \Rightarrow \mathrm{M} \geq \mathrm{E}$
E \$ C $\Rightarrow \mathrm{E}<\mathrm{C}$
Therefore, $\mathrm{H}>\mathrm{M} \geq \mathrm{E}<\mathrm{C}$
Conclusions
I. $C$ © $M \Rightarrow C>M$ : Not True
II. $\mathrm{H} \subset \mathrm{E} \Rightarrow \mathrm{H}>\mathrm{E}$ : True
28. Statements :

N © J, J \% R, R © H

## Conclusions :

I : R \# N

II : N © H
Solution: 5
(5) $N$ © $J \Rightarrow N \geq J$
$\mathrm{J} \% \mathrm{R} \Rightarrow \mathrm{J}=\mathrm{R}$
R (c) $\mathrm{H} \Rightarrow \mathrm{R}>\mathrm{H}$
Therefore, $\mathrm{N} \geq \mathrm{J}=\mathrm{R}>\mathrm{H}$
Conclusions
I. $\mathrm{R} \# \mathrm{~N} \Rightarrow \mathrm{R} \leq \mathrm{N}$ : True
II. N (c) $\mathrm{H} \Rightarrow \mathrm{N}>\mathrm{H}$ : True
29. Statements :

L@ K, K © A, A\$W
Conclusions :
I :W \$ L
II : L \# W

## Solution:4

(4) L @ $\mathrm{K} \Rightarrow \mathrm{L} \geq \mathrm{K}$

K (c) $\mathrm{A} \Rightarrow \mathrm{K}>\mathrm{A}$
A $\$ \mathrm{~W} \Rightarrow \mathrm{~A}<\mathrm{W}$
Therefore, $\mathrm{L} \geq \mathrm{K}>\mathrm{A}<\mathrm{W}$
Conclusions
I. W \$ L $\Rightarrow$ W $<L$ : Not True
II. L \# W $\Rightarrow \mathrm{L} \leq \mathrm{W}$ : Not True
30. Statements:

J \# R, R © D, D @ F

## Conclusions :

I : F \$ R
II : F \% R
Solution: 1
(1) J \# R $\Rightarrow$ J $\leq$ R
$R$ © $D \Rightarrow R>D$
D (6) $F \Rightarrow D \geq F$
Therefore, $\mathrm{J} \leq \mathrm{R}>\mathrm{D} \geq \mathrm{F}$
Conclusions
I. $\mathrm{F} \$ \mathrm{R} \Rightarrow \mathrm{F}<\mathrm{R}$ : True
II. $F \% R \Rightarrow F=R$; Not True

Directions (31-35) : Study the following information carefully to answer these questions:
Eight friends J, K, L, M, N, o, P
and 9 are sitting around a circle facing the center. $J$ is not the neighour of N. L is third to the right of K .9 is second to the left of N who is next to the right of $\mathrm{L} . \mathrm{o}$ is not the neighbour of N or K and is to the immediate left of P .
31. Which of the following is the correct position of L ?
(1) To the immediate right of N
(2) To the immediate right of 9
(3) To the immediate left of N
(4) To the immediate left of $Q$
(5) None of these

## Solution:2

(31-35)

32. Which of the following pair of persons represent $\mathrm{o}^{\prime}$ is neighbours?
(1) L \&N
(2) P \& K
(3) M \& P
(4) N \& P
(5) None of these

## Solution:3

33. Which of the following groups has the first person sitting between the other two persons?
(1) PKJ
(2) JQL
(3) QNL
(4) LMN
(5) None of these

## Solution: 5

34. Who is to the immediate right of $K$ ?
(1) J
(2) $P$
(3) Q
(4) Cannot be determined
(5) None of these

## Solution: 1

35. Who is to the immediate left of o?
(1) $P$
(2) L
(3) g
(4) M
(5) None of these

## Solution:4

Directions (36-40) In each of the questions given below which one of the five answer figures should come after the problem figures, if the sequence were continued?

## 36. Problem Figures



## Answer Figures



## Solution:2

(2) In each subsequent figure one design of each column is replaced with a new design and when all the three designs are replaced with designs, the previous designs begin to appear step wise,

## 37. Problem Figures



## Answer Figures



## Solution: 1

(1) In each subsequent figure one L-shaped design is added at upper or lower position and the pre-existing design is inverted laterally.
38. Problem Figures


## Answer Figures

|  | $\stackrel{s}{\text { त }}$ |  |  | $\stackrel{8}{8} \square_{\text {¢ }}$ |
| :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) |

## Solution:4

(4) in each subsequent figure the plane of designs rotates through $45^{\circ}$ anticlockwise. The positions of designs change in the following manner :


These three steps are repeated one by one.

## 39. Problem Figures



## Answer Figures



## Solution:5

(5) In each subsequent figure the designs move half step and one step alternately in anticlockwise direction and two adjacent designs interchange positions. In each subsequent figure one new design is introduced in front of the ere-pxisting designs.

## 40. Problem Figures



## Answer Figures



## Solution:3

(3) In each subsequent figure the plane of designs rotates through $45^{\circ}$ and $90^{\circ}$ anticlockwise alternately. In the first step one of the three designs moves to the middle and other two designs interchange positions with the designs of other side. In the second step one of the two designs moves to the middle positions,

