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99. If each boy and each girl from class "D" donated ₹ 15 and ₹ 12 for Swachta Abhiyan, then find total amount collected by donation from class "D" :

- (a) ₹ 5,050
- (b) ₹ 5,550
- (c) ₹ 5,250
- (d) ₹ 5,750

100. Average number of boys in class "B", "D" and "E" together is :

- (a) 158
- (b) 148
- (c) 198
- (d) 128

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1,760

H

Roll No. ....

**XCS-401/XCS-400(B)**

**B. TECH. (CS/CE)**

**(FOURTH SEMESTER)**

**END SEMESTER**

**EXAMINATION, June, 2023**

**CAREER SKILLS**

**Time : Three Hours**

**Maximum Marks : 100**

**Instructions for students :**

- (i) This paper consists of 100 questions.
- (ii) All questions are compulsory.
- (iii) Each question carries equal marks.
- (iv) Calculator is not allowed.
- (v) There is no negative marking.
- (vi) It is compulsory to mention the SET in the

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**SET-B**

**Directions for questions 1 - 5 :** Pick the odd one out from the following words :

1. Pick the odd one out :

- (a) Uranium
- (b) Polonium
- (c) Sodium
- (d) Radium

2. Pick the odd one out :

- (a) Peak
- (b) Valley
- (c) Mountain
- (d) Mound

3. Pick the odd one out :

- (a) Axe
- (b) Spade
- (c) Hammer
- (d) Blacksmith

4. Pick the odd one out :

- (a) Mars
- (b) Mercury
- (c) Earth
- (d) Neptune

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5. Pick the odd one out :

- (a) RAM
- (b) Flash Memory
- (c) Hard Disc
- (d) Floppy

**Directions for questions 6 - 15 :** A sentence has been given in Active/Passive Voice. Out of the four alternatives suggested below, select the one which best expresses the same sentence in Passive/Active Voice :

6. We waste much time on trifles :

- (a) Much time was wasted on trifles.
- (b) Much time will be wasted on trifles
- (c) Much time is wasted by us on trifles.
- (d) Much time is wasted on trifles.

7. You don't need to wind this watch :

- (a) This watch need not be wound.
- (b) This watch does not wind.
- (c) This watch need not be wounded.
- (d) This watch need not be winded up.

8. We have already done the exercise :

- (a) Already the exercise has been done by us.

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- (b) The exercise has already been done by us.
  - (c) The exercise had been already done by us.
  - (d) The exercise is already done by us.
9. One should not give unsolicited advice :
- (a) Unsolicited advice is not to be given.
  - (b) Unsolicited advice can't be given.
  - (c) Unsolicited advice may not be given.
  - (d) Unsolicited advice should not be given.
10. The boys elected Mohan captain .:
- (a) The boys were elected captain by Mohan.
  - (b) Mohan is elected captain by the boys.
  - (c) Mohan was elected captain by the boys.
  - (d) Mohan and the boys elected the captain.
11. The pilot landed the plane safely :
- (a) The plane had been landed safely by the pilot.
  - (b) The plane was landed safely by the pilot.
  - (c) The plane has been landed safely by the pilot.
  - (d) The plane was to be landed safely by the pilot.

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12. The old lady touched and patted the cow :
- (a) The cow patted and touched the old lady.
  - (b) The cow was touched by the old lady patting her.
  - (c) The cow was touched and patted by the old lady.
  - (d) The patted cow touched the old lady.
13. The money was stolen by an employee of the bank :
- (a) An employee of the bank had stolen the money.
  - (b) An employee of the bank steal the money.
  - (c) An employee of the bank stole the money.
  - (d) The money can be stolen by an employee of the bank.
14. I expect you to complete this work before sunset :
- (a) I expect you to be completed this work before sunset.
  - (b) I am expected you to complete this work before sunset.
  - (c) You are expected to complete this work before sunset.
  - (d) You are expected to be completed this work before sunset.

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15. Mohan gave the beggar an old shirt :

- (a) An old shirt was given to Mohan by the beggar.
- (b) An old shirt was given to the beggar by Mohan.
- (c) The beggar was gave an old shirt by Mohan.
- (d) An old shirt was gave to the beggar by Mohan.

**Directions for questions 16 - 20 :** Choose the option which is in the proper parallel structure :

16. (a) Benefits of coaching include : knowing each player, helping that player to improve and getting to see that person succeed in life.
- (b) Benefits of coaching include : to know each player, helping that player to improve and to get to see that person succeed in life.
- (c) Benefits of coaching include : knowing each player, to help that player to improve and to get to see that person succeed in life.
- (d) Benefits of coaching include : knowing each player, helping that player to improve and to get to see that person succeed in life.

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17. (a) The protestors were gathering outside, held signs, starting to shout loudly and stopped the speaker from being heard.
- (b) The protestors were gathering outside, holding signs, started to shout loudly and stopping the speaker from being heard.
- (c) The protestors were gathering outside, held signs, to start to shout loudly and stopped the speaker from being heard.
- (d) The protestors gathered outside, held signs, started to shout loudly and stopped the speaker from being heard.
93. (a) Exercises that I enjoy doing are marathon running, to swim lengths in a pool, riding my bicycle in the park, and to walk along the trails in a forest.
- (b) Exercises I enjoy doing are running marathons, swimming lengths in a pool, riding my bicycle in the park, and walking along the trails in a forest.
- (c) Exercises that I enjoy doing are marathon running, to swim lengths in a pool, to ride my bicycle in the park, and to walk along the trails in a forest.
- (d) Exercises that I enjoy doing are to run marathon, to swim lengths in a pool, riding my bicycle in the park, and to walk along the trails in a forest.

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19. (a) Henry likes a ball, to jump and running outside.  
(b) Henry likes a ball, jumping and running outside.  
(c) Henry likes a ball, jumping and to run outside..  
(d) Henry likes a ball, to jump and to run outside.
20. (a) Grandpa walked carefully, haltingly and in a slow way.  
(b) Grandpa walked carefully, haltingly and slowly.  
(c) Grandpa walked in a careful manner, haltingly and in a slow way.  
(d) Grandpa walked with care, haltingly and in a slow way.

**Directions for questions 21-30 :** Read the following passages carefully and answer the questions given below them.

**PASSAGE**

A few weeks ago, I ran into an old friend who is currently one of the mandarins deciding India's economic and financial policies. He asked, "And

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so, how is IIT doing ?" As one can only indulge in friendly banter at such gatherings, I responded with, "Not so well actually. Your market-friendly policies have forced us to raise the fee, so we have 50% fewer Ph. D. applicants this year. Not batting an eyelid, he shot back : "Obviously. Your Ph. D. students don't have any market value." Taken aback, I shifted to a more serious tone and tried to start a discussion on the need for research in these **globalised** times. But he had already walked away. The last word on the imperatives of the 'market' had been spoken. Actually, this view of higher education should not have surprised me. Worthies who look at everything as consumer products classify higher education as a 'non-merit' good. Non-merit goods are those where only the individual benefits from acquiring them and not the society as a whole. Multilateral agencies like The World Bank have too been pushing countries like India to stop subsidies to higher education.

When Ron Brown, former US commerce secretary visited India, a public meeting was organized at IIT Delhi. At that meeting I asked him : "I

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understand that since the 19th century all the way up to the 1970s, most land grant and state universities in the US virtually provided free education to state citizens. Was that good for the economy, or should they have charged high fees in the early 20th century ?” He replied, “It was great for the economy. It was one of the best things that the US government did at that particular time in American history—building institutions of higher education which were accessible to the **masses** of the people. I think it is one of the reasons why our economy grew and **prospered**, one of the ways in which the US was able to close some of its social gaps. So, people who lived in rural areas would have the same kind of access to higher education as people living in other parts of the country. It was one of the reasons for making America strong.”

Our policymakers seem **unaware** that their mentors in the US did not follow policies at home which they now prescribe for other countries. Ron Brown’s remarks summarize the importance of policymakers in the US place on higher education

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as a vehicle for upward mobility, for the poorer sectors of their population. Even today, a majority of Americans study in state-run institutions. Some of these institutions, like Berkeley and the Universities of Michigan, Illinois, Ohio, Wisconsin and Texas, are among the best in world. The annual tuition charged from state residents (about \$ 5000 a year) is about a month’s salary paid to a lecturer. Even this fee is **waived** for most students. In addition, students receive stipends for books, food, and hostel charges. The basic principle is that no student who gets admission to a university should have to depend on parental support if it is not available.

Ron Brown’s remarks went unnoticed in India. Every other day some luminary or the other opines that universities and technical education institutions should increase their charges and that such education should not be subsidized. Most editorials echo these sentiments. Eminent industrialists pontificate that we should run educational institutions like business houses. Visiting experts from the Bank and the IMF, in

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their newly emerging **concern** for the poor, advise us to divert funds from higher education to primary education.

21. The author of the passage seems to be a/an :

- (a) Social activist devoted to illiteracy eradication programme.
- (b) Educationist in IIT or some such educational institution.
- (c) Financial advisor to Government or a bureaucrat in finance department.
- (d) Official working in economic affairs department.

22. What was the net tangible impact of raising fees on the higher level of technological research ?

- (a) Research studies attained a higher market value.
- (b) Research became more and more relevant to market demands.
- (c) The market value of Ph. D. students was almost lost.
- (d) The number of prospective researchers was reduced to almost half.

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23. According to the author, the US policymakers consider education as a :

- (a) Wastage of resources and a totally futile exercise
- (b) Matter of concern only for the parents of the students
- (c) Means for achieving upward mobility for the poor
- (d) Hindrance in the way to economic growth and prosperity

24. Which of the following makes the policymakers classify education as "non-merit" commodity ?

- (a) The tendency of viewing everything as mere consumer product
- (b) Undue pressure from International Agencies like the World Bank, etc.
- (c) The attitude of giving unreasonably more weightage to society
- (d) The tendency of people to seek any individual benefits

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25. The basic principle adopted by the renowned State-run Universities in the US is that the students :

- (a) must seek the necessary help from their parents on whom they depend
- (b) need not be required to depend upon their parents for acquiring higher education
- (c) should earn while they learn and pay higher education fees
- (d) must pay the lecturer's salary from their own resources

26. What was the outcome of the US strategy of imparting free university education to US citizens ?

- (a) US economy suffered due to such a lop-sided decision.
- (b) US Govt. could not plug the loopholes in their economic policies.
- (c) US citizens found it unaffordable and expensive.
- (d) None of these

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27. Multilateral agencies like The World Bank have been :

- (a) analyzing the possibilities of increasing subsidies to higher learning
- (b) emphasizing on the needs of lowering fees for higher education
- (c) insisting on discontinuance of subsidies to higher education
- (d) pressurizing India and other countries to stop substantial higher education

28. What was Ron Brown's reaction to the author's question on free education provided by US universities to their citizens ? Ron Brown :

- (a) ignored the fact and gave an ambiguous reaction.
- (b) mentioned that the author's information was not correct.
- (c) appreciated the author but remained non-committed.
- (d) criticized the US Govt. for its action.



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29. Which of the following is **MOST NEARLY THE SAME** in meaning as the word printed in bold as used in the passage ?

**UNAWARE**

- (a) Familiar
- (b) Unworthy
- (c) Ignorant
- (d) Famous

30. Which of the following is **MOST OPPOSITE** in the meaning of the word printed in bold as used in the passage ?

**GLOBALISED**

- (a) Earthly
- (b) Prospering
- (c) Liberalised
- (d) Decentralised

**Directions for questions 31 - 35 :** Choose the option which does not have a parallel structure :

31. (a) At Lincoln High School,  
(b) vandalism can result in suspension  
(c) or even being expelled from school  
(d) No error

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32. (a) Either you are  
(b) for us  
(c) or against us  
(d) No error

33. (a) They argued  
(b) not only about the article,  
(c) but they argued also about the review.  
(d) No error

34. (a) In order to convey the information correctly to the crowd,  
(b) the police officer was speaking loudly,  
(c) he told people where they should be standing,  
(d) repeating information so they would remember.

35. (a) Deal with a full inbox  
(b) first thing in the morning, or by setting aside short periods of time  
(c) in which to answer e-mail queries.  
(d) No error

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**Directions for questions 36-45 :** Choose the correct option to complete the sentence :

36. My boss .....

- (a) will have been leaving for Chandigarh tonight.
- (b) will leave for Chandigarh tonight.
- (c) is leaving for Chandigarh tonight.
- (d) leaves for Chandigarh tonight.

37. Payal .....

- (a) have not submitted any report yet.
- (b) did not submit any report yet
- (c) has not submitted any report yet
- (d) was not submitting any report yet

38. What .....

- (a) has you all been doing in this project since Monday ?
- (b) have you all been doing in this project since Monday ?
- (c) are you all doing in this project since Monday ?
- (d) you have all been doing in this project since Monday ?

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39. I .....

- (a) met many political leaders during my visit last year.
- (b) had met many political leaders during my visit last year.
- (c) had been meeting many political leaders during my visit last year.
- (d) have met many political leaders during my visit last year.

40. Where .....

- (a) he has been appointed by the boss this week ?
- (b) he has appointed by the boss this week ?
- (c) has he been appointed by the boss this week ?
- (d) has been he appointed by the boss this week ? (appoint)

41. We .....

- (a) wait for the bus for two hours.
- (b) are waiting for the bus for two hours.
- (c) have been waiting for the bus for two hours.
- (d) waited for the bus for two hours.

42. All the students .....

- (a) had entered the class before the teacher started the lecture
- (b) have the class before the teacher started the lecture
- (c) has entered the class before the teacher started the lecture
- (d) entered the class before the teacher started the lecture.

43. I .....

- (a) watched my favorite movie when you called me.
- (b) had watched my favorite movie when you called me.
- (c) had been watching my favorite movie when you called me.
- (d) was watching my favorite movie when you called me.

44. The Prime Minister .....

- (a) is visiting many places during the election
- (b) visited many places during the election
- (c) was visiting many places during the election
- (d) had been visiting many places during the election.

45. We .....

- (a) were celebrating our success but it charges us hard work with dedication
- (b) celebrated our success but it charges us hard work with dedication
- (c) had celebrated our success but it charges us hard work with dedication
- (d) celebrate our success but it charges us hard work with dedication.

**Directions for questions 46 - 50 :** In each of the following question pair there is a common relationship between two given words. Choose the correct alternatives to form the same relationship :

46. Moderate : Intensify : : Nominal : ?

- (a) Memorial
- (b) Chacs
- (c) Distance
- (d) Expensive

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47. Maharashtra : India :: Texas : ?

- (a) Brazil
- (b) Mexico
- (c) USA
- (d) Canada

48. Sitar : Guitar :: Tanpura : ?

- (a) Trumpet
- (b) Mridanga
- (c) Harmonium
- (d) Violin

49. Stethoscope : Heartbeat :: ? : Temperature

- (a) Heat
- (b) Scale
- (c) Mercury
- (d) Thermometer

50. House : Room :: World : ?

- (a) Air
- (b) Land
- (c) Sun
- (d) Nation

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**Directions for questions 51-52 :** Answer the questions based on the information given below :

A, B, C, D and E play a game of cards. A says to B "If you give me 5 cards, I will have as many cards as E has". In reply, B says to A "If you give me 5 cards, I will have as many cards as D has". A and E together have 20 cards more than what D and B have together. Also, B has 4 cards more than C and the total number of cards with all of them is 201.

51. How many cards does C have ?

- (a) 34
- (b) 37
- (c) 31
- (d) 35

52. Who has the maximum number of cards ?

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

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**Directions for questions 53-60 :** Each of these questions contains statements followed by conclusions. Decide which of the given conclusions logically follow from the given statements.

**53. Statements :**

1. Some Reeboks are Adidas.
2. All Nike are Puma.
3. Some Lotto are Adidas.
4. No Lotto are Nike.

**Conclusions :**

- I. All Adidas are Puma.
- II. Some Puma are Nike.
- III. Some Lotto are Reebok.
- IV. Some Adidas are Lotto.

Mark the answer as :

- (a) If only II follows
- (b) If only I follows
- (c) If only II and IV follow
- (d) If only III follows

**54. Statements :**

1. All papers are books.
2. All pencils are books.
3. No paper is pencil.
4. No stationery is book.

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**Conclusions :**

- I. Some pens can be books as well as papers.
- II. All pens being papers is not a possibility.
- III. Some pens are not papers.
- IV. Some papers can be stationery.

Mark the answer as :

- (a) If only I, II and IV follow
- (b) If only II, III and IV follow
- (c) If only IV follows
- (d) None of these

**55. Statements :**

1. No Physics is Maths.
2. Some Chemistry are Maths.
3. Some Studies are Physics.
4. All Sciences are Chemistry.

**Conclusions :**

- I. No Science is Physics.
- II. Some Physics are Science.
- III. Some Chemistry, which is Maths, is definitely not Physics.
- IV. Some Physics can be Chemistry as well as Science.

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Mark the answer as :

- (a) Either I or II follows
- (b) Only III, IV and either I or II follow
- (c) Only III and IV follow
- (d) All follow

**56. Statements :**

- 1. Some roads are not good.
- 2. Some railways are good.
- 3. All airways are good.
- 4. Some roads are bad.

**Conclusions :**

- I. Some roads which are not good being bad is a possibility.
- II. Some bad are good.
- III. All roads being airways is a possibility.
- IV. No bad is good.

Mark the answer as :

- (a) Only I and II follow.
- (b) Either II or IV follow.
- (c) Only I, III and either II or IV follow
- (d) None of these

**57. Statements :**

- 1. Some metals are liquids.
- 2. Some liquids are solid.
- 3. All solids are hard.
- 4. No hard is smooth.

**Conclusions :**

- I. No smooth is solid.
- II. Some liquids are smooth.
- III. Some solids are smooth.
- IV. Some hard can be metal.

Mark the answer as :

- (a) Only I and II follow
- (c) Only II and IV follow
- (b) Only II and III follow
- (d) Only I and IV follow

**58. Statements :**

- 1. Some problems are easy.
- 2. All tough are easy.
- 3. All puzzles are problems.
- 4. Some tough are different.

**Conclusions :**

- I. Some tough are puzzles.
- II. Some different are problems.
- III. At least some easy are different.
- IV. All problems can be different.

Mark the answer as :

- (a) Only I and IV follow
- (b) Only III and IV follow
- (c) Only I and II follow
- (d) Only II and III follow

**59. Statements :**

1. Some risks are stocks.
2. All risks are defaults.
3. No default is debt.

**Conclusions :**

- I. No debt is a risk.
- II. Some debts are stocks.
- III. Some stocks which are risks being debt is a possibility.
- IV. Some defaults are stocks.

Mark the answer as :

- (a) Only I and III follow
- (b) Only II and III follow
- (c) Only I and IV follow
- (d) Only II and IV follow

**60. Statements :**

1. Some I-phones are One plus.
2. All One plus are not Samsung.
3. No Samsung are Redmi.
4. All Redmi are Realme.

**Conclusions :**

- I. All One plus being Redmi is a possibility.
- II. Some Redmi are I-phones.
- III. All Realme being Samsung is a possibility.
- IV. No Redmi are I-phones.

Mark the answer as :

- (a) If only I follow
- (b) If either II or IV follows
- (c) If only I and either II or IV follow
- (d) If only III and either II or IV follow

**61. On what dates of July 2004 did Monday fall ?**

- (a) 2, 9, 16, 23, 30
- (b) 7, 14, 21, 28
- (c) 4, 11, 18, 25
- (d) 5, 12, 19, 26

**62. The calendar for the year 1993 will be same for the year :**

- (a) 1999
- (b) 2004
- (c) 2010
- (d) 2021

**63. On 8th February, 2005 it was Tuesday. What was the day of the week on 8th February, 2004 ?**

- (a) Tuesday
- (b) Saturday
- (c) Friday
- (d) Sunday

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64. What was the day of the week on 16th July, 1776 ?

- (a) Tuesday
- (b) Wednesday
- (c) Monday
- (d) Saturday

65. If February 12th, 1986 falls on Wednesday, then January 1st, 1987 falls on which day ?

- (a) Wednesday
- (b) Tuesday
- (c) Thursday
- (d) Friday

**Directions for questions 66-70 :** The table given below shows the number of male employees and the percentage of female employees in five different companies.

Answer the questions based on the information given below :

Companies	Number of male employees	Percentage of female employees
A	160	60%
B	195	35%
C	135	55%
D	105	58%
E	168	30%

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66. Find the difference between the number of male employees in company C and the number of female employees in company A :

- (a) 140
- (b) 125
- (c) 105
- (d) 95

67. Find the total number of employees in company B :

- (a) 250
- (b) 240
- (c) 300
- (d) 280

68. The number of male employees in company D is what percent of the total number of employees in company A ?

- (a) 32.5%
- (b) 20%
- (c) 40%
- (d) 26.25%

69. If the total number of employees in company F is 25% more than the total number of employees in company E and the number of male employees in company F is equals to the



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number of male employees in company A, find the number of female employees in company F :

- (a) 140
- (b) 150
- (c) 160
- (d) 180

70. Find the ratio of the number of female employees in company E to the number of male employees in company C :

- (a) 3 : 5
- (b) 9 : 7
- (c) 7 : 12
- (d) 8 : 15

**Directions for questions 71-73 :** The questions given below consists of three statements numbered I, II and III below them. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the statements and give the answer :

71. There are seven persons P, Q, R, S, T, U and W living on a 7 storey building on different floors. The bottommost floor is numbered

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1 and the topmost floor is numbered 7. How many persons live between S and U ?

**I :** S lives on an even numbered floor. T lives immediately above S. There is a gap of 3 floors between T and R. Q lives immediately above U.

**II :** T doesn't live at the topmost floor. There are at least 2 floors between R and T.

R doesn't live at the bottommost floor. P lives 3 floors above W.

**III.** U lives above W and there are at least 2 floors between them. Q lives immediately above U but not on the topmost floor.

- (a) Data given in both statements I and II are together sufficient to answer.
- (b) Data given in both statements II and III are together sufficient to answer.
- (c) Data given in both statements I and III are together sufficient to answer.
- (d) Data given in all three statements I, II and III are together sufficient to answer.

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72. In the given coded language, how is the word "less" coded ?

I : "more than four persons" is coded as "ck nk rk ak" and "less persons sitting together" is coded as "bk ek dk nk".

II : "less than three persons" is coded as "rk bk nk fk" and "faster persons moves more" is coded as "ak jk nk gk".

III : "first second three four" is coded as "lk fk ck mk" and "together less persons is coded as "ek nk bk".

- (a) Data in both statement I and statement III together sufficient to answer.
- (b) Data in either statement I or statement II is sufficient to answer.
- (c) Data in either statement I and statement III together or statement II and statement III together is sufficient to answer.
- (d) Data in only statement III is sufficient to answer.

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73. A visitor visits five cities on different days of the week starting from Monday to Friday. He visits only one city a day. Then to which city does he visit on Thursday ?

I : The visitor visits only one city between city X and city Y, which he visits on Wednesday.

II : He visits city Z immediately before he visits city X. He doesn't visit city D on Wednesday.

III : He visits city T on Monday. Only two cities are visited by him between city U and city I.

- (a) Data in statement I alone is sufficient to answer the question.
- (b) Data in either both statement I and statement II or statement III alone is sufficient to answer the question.
- (c) Data in statements I and II together is sufficient to answer the question.
- (d) Data in either statement I alone or statement III alone is sufficient to answer the question.

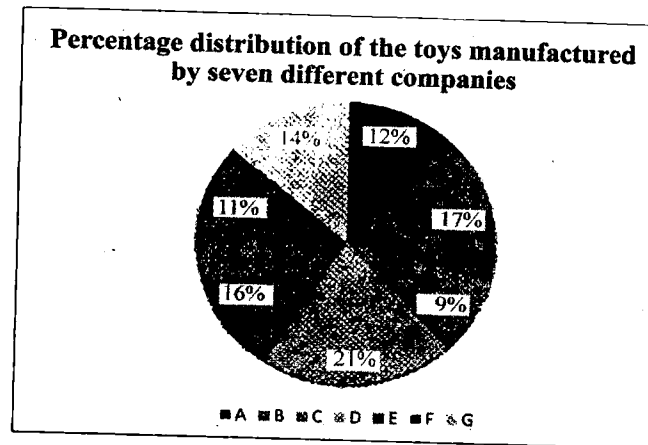
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(36) XCS-401/XCS-400(B)

**Directions for questions 74-78 :** Answer the questions based on the information given below :

The pie chart given below shows the percentage distribution of the number of toys manufactured by seven different toy manufacturing companies in 2016.

**Note :** Number of toys manufactured by company B in 2016 = 6800.



74. What is the difference between the number of toys manufactured by company F and C in 2016 ?

- (a) 800
- (b) 600
- (c) 1000
- (d) 1200

(37) XCS-401/XCS-400(B)

75. In 2016, number of electrical toys and number of battery toys manufactured by D are in the ratio 9 : 5 respectively. Find the number of battery toys manufactured by D in 2016 :

- (a) 2800
- (b) 3000
- (c) 3200
- (d) 3500

76. What is the average number of toys manufactured by A, E and G together in 2016 ?

- (a) 6000
- (b) 5400
- (c) 6400
- (d) 5600

77. B and E sold 75% and 80% of the toys manufactured by them in 2016 respectively. Find the total number of toys sold by B and E in 2016 :

- (a) 10120

(38) XCS-401/XCS-400(B)

(b) 10220

(c) 10320

(d) 10420

78. Production of toys by C increased by 25% in 2017 as compared to 2016. Its production further increased by 20% in 2018 as compared to the previous year. Find the number of toys manufactured by C in 2018 :

(a) 5000

(b) 5800

(c) 5400

(d) 5600

**Directions for questions 79-81 :** Answer the questions based on the information given below :

A cube of side 3 cms is taken and is painted red on all its faces. It is now cut into equal sized cubes of side 1 cm.

(39) XCS-401/XCS-400(B)

79. How many of the cubes will not have any face painted ?

(a) 6

(b) 3

(c) 9

(d) 12

80. How many of the cubes will have at least 2 of its sides painted ?

(a) 12

(b) 15

(c) 20

(d) None of these

81. Find the ratio of the number of cubes with exactly 3 sides painted to those with exactly 2 sides painted ?

(a) 2 : 3

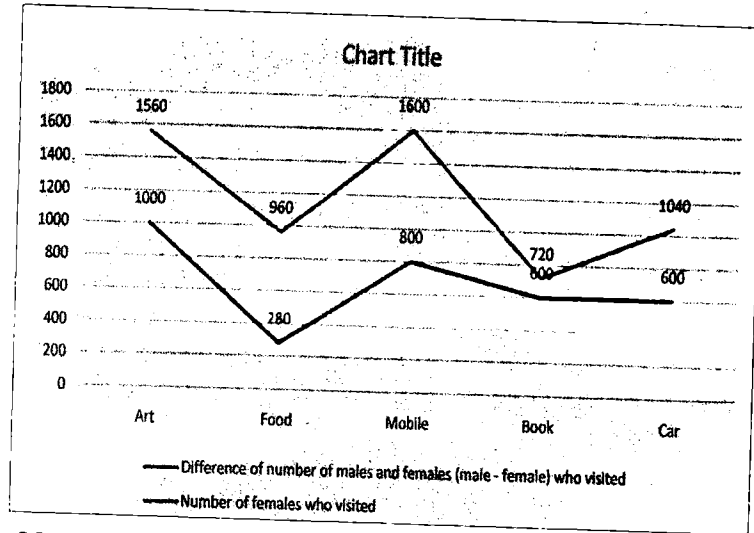
(b) 3 : 4

(c) 3 : 2

(d) 4 : 3

(40) XCS-401/XCS-400(B)

**Directions for questions 82-86 :** Answer the questions based on the information given below :  
The given line graph shows the difference between number of males and females i.e. (male-female) and number of females, who visited five different types of exhibitions ?



82. The number of males who visited art exhibition is how much percent more/less than the total number of people who visited mobile exhibition ?

- (a) 32%
- (b) 36%
- (c) 24%
- (d) 48%

(41) XCS-401/XCS-400(B)

83. Find the average of number of people who visited art and car exhibition :

- (a) 3440
- (b) 3120
- (c) 3200
- (d) 3400

84. Out of total people who visited book exhibition, only 25% made some purchases out of which  $\frac{1}{3}$ rd were females. Find the number of male who visited book exhibition and didn't make any purchases :

- (a) 1050
- (b) 840
- (c) 1020
- (d) 980

85. Find the difference between total people who visited food exhibition and number of males who visited art and car exhibitions, together :

- (a) 2000
- (b) 2400
- (c) 1600
- (d) 1800

( 42 ) XCS-401/XCS-400(B)

86. Total people who visited another exhibition i.e. bike exhibition is equal to the number of males who visited mobile exhibition. If the ratio of the number of males to that of females who visited bike exhibition is 11 : 4, then find the number of females who visited bike exhibition :
- (a) 400
  - (b) 960
  - (c) 640
  - (d) 720

**Directions for questions 87-90 :** In each of the following questions, a question stem is followed by two different statements. You need to decide whether the statements given are sufficient to answer the question asked. Mark your answer option as :

- (a) If the question can be answered by using any one of the statements alone, but not by the other alone.
- (b) If the question can be answered by using either of the two statements alone.
- (c) If the question can be answered by using both the statements together.
- (d) If the question cannot be answered by using both the given statements together.

( 43 ) XCS-401/XCS-400(B)

87. Seven athletes A, B, C, D, E, F and G are running in a marathon first. Which athlete finished the race first ?

**I :** Only two athletes finished the race after C. A finished the race after D but finished before G. E finished at the second position. F finished at last position.

**II :** The number of athletes finishing the race before A and the number of athletes finished after A is equal. G finished after C but finished before F. Only two athletes finished before D. E finished before A but not at the first place.

88. Is it Friday today ?

**I :** 1st of February of this year was a Monday.

**II :** Today is March 2nd.

89. Five persons P, Q, R, S and T are sitting in a row facing north. Who among the following sits at the extreme right end ?

**I :** T sits second to the left of R. Q does not sit adjacent to R, who doesn't sit at any end. S sits to the right of P but not adjacent to Q.

(44) XCS-401/XCS-400(B)

II : P sits exactly between Q and S. T sits third to the left of S. R does not sit at any end.

90. There are eight members in a family. A, B, C, D, E, F, G and H. How is G related to H ?

I : D is the daughter of G. D is the only sister-in-law of E, who is the wife of B, who is the father of F, who is the only brother of H.

II : G is the wife of A, who is the father of D, who is the only sister of B, who is the husband of E, who is mother of H's only brother.

91. What is the angle made by the hour hand and the minute hand, if the clock shows 9 : 15 p.m. ?

- (a) 165 degrees
- (b) 172.5 degrees
- (c) 112.5 degrees
- (d) 125.5 degrees

(45) XCS-401/XCS-400(B)

92. A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours will be the true time when the clock indicates 1 p.m. on the following day ?

- (a) 48 minute past 12 p.m.
- (b) 46 minute past 12 p.m.
- (c) 45 minute past 12 p.m.
- (d) 47 minute past 12 p.m.

93. At what time between 2 and 3 o'clock will the hands of a clock be together ?

- (a)  $(9 + 10 / 11)$  min. past 2 p.m.
- (b)  $(10 + 10 / 11)$  min. past 2 p.m.
- (c)  $(11 + 10 / 11)$  min. past 2 p.m.
- (d)  $(12 + 10 / 11)$  min. past 2 p.m.

94. Find at what time between 8 and 9 o'clock will the hands of a clock be in the same straight line but not together ?

- (a)  $100/11$  min. past 8 p.m.
- (b)  $120 / 11$  min. past 8 p.m.
- (c)  $90/11$  min. past 8 p.m.
- (d)  $80/11$  min. past 8 p.m.

(46) XCS-401/XCS-400(B)

95. What angle is made by minute and hour hand

at 11 : 10 ?

(a) 265 degrees

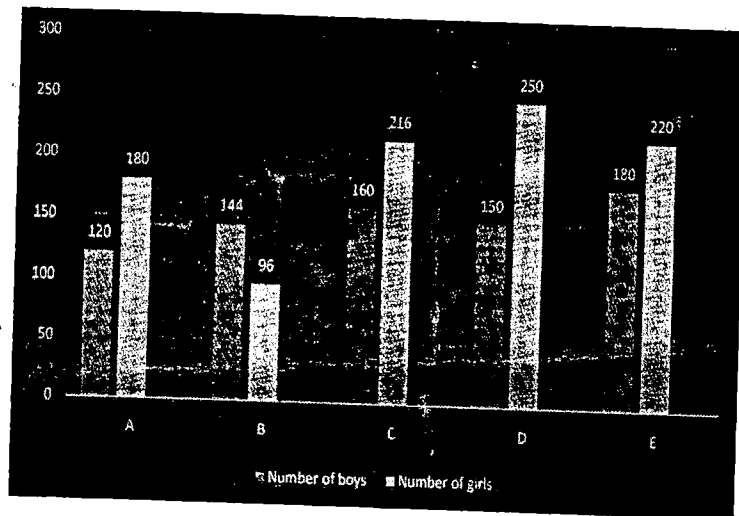
(b) 175 degrees

(c) 85 degrees

(d) 95 degrees

**Directions for questions 96-100 :** Answer the questions based on the information given below :

The bar graph given below shows the number of boys and girls in five different classes of a school.



(47) XCS-401/XCS-400(B)

96. On a certain day the ratio of number of students who are present to that who are absent in class "C" is 5 : 3, respectively. Find the number of students who are present in class "C" on that day :

(a) 235

(b) 215

(c) 141

(d) 225

97. If 40% of boys in class "E" from society "X" while 60% of girls in the same class are from society "X", then number of students in class "E" who are not from society "X" ?

(a) 216

(b) 196

(c) 180

(d) 156

98. Find the difference between number of students in classes "A" and "B" :

(a) 40

(b) 60

(c) 80

(d) 20