## IBPS SPECIALIST OFFICERS (IT)

## REASONING

Directions (1 to 5) These questions are based on the following information $\qquad$
' P © Q ' means ' Q is the brother of P '.
' $P$ \# $Q$ ' means ' $P$ is the daughter of $Q$ '.
' $\mathrm{P}=\mathrm{Q}$ ' means ' Q is the sister of P '.
' $\mathrm{P} £ \mathrm{Q}$ ' means ' P is the son of Q '.
' $P$ * Q ' means ' P is the father of Q '.
'P @ Q' means 'P is the mother of Q '.

1. What does the expression ' $\mathrm{P} @ \mathrm{R}=\mathrm{S}$ © $\mathrm{T} £ \mathrm{~V}$ ' mean?
1) $V$ is the husband of $P$
2) $R$ is the son of $V$
3) $R$ is the daughter of $V$
4) V is the wife of P 5 ) None
2. Which of the following indicates that ' C is the paternal uncle of D '?
1) C £ V \# N @ L © D
2) $\mathrm{C} £ \mathrm{~V} £ \mathrm{~L}$ @ N © D
3) D£L£N@V®C
4) D £ N \# V @ L © C
5) None
3. Which of the following can be the correct conclusion drawn from the expression 'L $=\mathrm{M} \# \mathrm{~N} \odot \mathrm{P}^{*} \mathrm{Q}^{\prime}$ ?
1) $Q$ is the grandson of $M$
2) $L$ is the uncle of $N$
3) $N$ is the uncle of $Q$.
4) Q is the niece of N
5) None
4. Which of the following can be correct conclusion drawn from the expression ‘ $\mathrm{Q} £ \mathrm{~N} @ \mathrm{~S} \odot \mathrm{M}=\mathrm{P}$ ’?
1) $S$ is the brother of $P$
2) N has two sons and two daughters
3) $S$ is the sister of $Q$
4) $P$ is the sister of $Q$
5) None
5. Which of the following indicates that ' Q is the daughter of N '?
1) $\mathrm{Q}^{*} \mathrm{P}$ \# C @ N @ V
2) $\mathrm{N}^{*} \mathrm{P} \# \mathrm{C} @ \mathrm{Q}$ @ V
3) M @ $\mathrm{N} \# \mathrm{R}$ * Q
4) $M \odot Q=V \# N$
5) None

Directions ( 6 to 11) : Study the following information to answer these questions.
(i) A, B, C, D, E, F, G and H are sitting along a circle facing the center.
(ii) $D$ is neighbour of $A$ but not ofH.
(iii) $B$ is neighbour of $F$ and 4th to the left of $D$.
(iv) E is neighbour of H and 3 r to to the right of F .
(v) $C$ is neither neighbour of $A$ nor of $G$.
6. Which of the following groups has the 2 nd person sitting between the 1 st and the 3rd ?

1) AFC
2) GAD
3) BEH
4) HFB
5) None
7. Which of the following pair has the 2 nd person sitting to the immediate left of the first ?
1) BH
2) FB
3) EG
4) AD
5) None
8. Which of the following is correct?
1) $D$ is to the immediate left of $G$
2) $A$ is between $C$ and $D$
3) $E$ is between $H$ and $B$
4) None is correct
9. Which of the following is wrong ?
1) $B$ is to the immediate left of H
2) H is to the immediate left of E
3) $C$ is 4 th to the left of $B$
4) All are correct
10. Which of the following pairs has three persons sitting between them ?
1) CE
2) FH
3) DC
4) ED
5) None
11. If C and G interchange their positions, which of the following will indicate A's position ?
1) To the immediate right of $G$
2) 4 th to the right of $C$
3) 2nd to the left of G
4) To the immediate left of $C$
5) None
12. How many such pairs of letters are there in the word DISTURB, each one has as many letters between its two letters in the word as there are between them in the English alphabet?
1) 4
2) 5
3) 3
4) 2
5) None
13. In a certain code DRAUGHT is written as CQBVHIU and CONCISE is written as BNODJTF. How will PROBLEM be written in that code?
1) OSNCMFN
2) OQPCMFN
3) QSNAMFN
4) OQPCKDN
5) None
14. Ganesh is 7 th to the left of Akshay in a row of boys facing North. Vijay, who is 20th from the left end of the row is 7th to the right of Akshay. If Kamlesh who is 3rd to the right of Ganesh is 20th from the right end of the row, how many boys are there in the row?
1) Cannot be determined 2) 30
2) 28
3) 26
4) None
15. If CHOLINE is written as 'OCIHLEN', then SURGEON will be written as-
1) RSUEGNO
2) RSEGUNO
3) RESUGNO
4) RSEUGNO
5) None

Directions ( $\mathbf{1 6}$ to 20) : In each question below are given three statements followed by three conclusions numbered I, II and III. You have to take the three 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. Then decide which of the answers 1), 2), 3), 4) and 5) is the correct answer.
16. Statements : Some papayas are guavas. Some guavas are carrots.
Some carrots are mangoes.
Conclusions: I. Some mangoes are papayas. II. Some carrots are papayas.
$\begin{array}{ll}\text { 1) Only either I or II follows } & \text { 2) Only either I or III follows } \\ \text { 3) Only II follows } & \text { 4) None follows }\end{array}$
17. Statements : All bottles are glasses.

All drums are bottles.
Some cups are bottles.
Conclusions: I. Some glasses are cups.
III. Some bottles are drums.

1) None follows
18. Statement :

## Conclusions:

19. Statements :
2) Only I and II follow
3) Only I and III follow

Some teachers are professors. Some professors are readers. All readers are rectors.
I. Some readers are teachers.
III. All rectors are readers.
2) Only I follows 3) Only II follows
II. All drums are glasses.
3) Only II and III follow
5) All follow

## Conclusions:

1) All follow
20. Statements :

## Conclusions:

1) Only I follows
2) Only II follows 3) Only III follows 4) None follows 5) None as follows-
' P @ Q ' means ' P is not greater thanQ'.
' $\mathrm{P} \# \mathrm{Q}$ ' means ' P is neither greater than nor smaller than Q '.
'P \$ Q ' means ' P is not smaller thanG'.
' $\mathrm{P} \Delta \mathrm{Q}$ ' means ' P ' is neither smaller than nor equal to C '.
' $\mathrm{P} \%$ Q' means ' $P$ is neither greater than nor equal to $Q$ '.
In each of the following questions assuming the given statements to be true, find out which of the two conclusions I and II given below them is/are definitely true.

## Give Answers:

1) If only conclusion I is true.
2) If only conclusion II is true.
3) If either conclusion I or conclusion II is true.
4) If neither conclusion I nor conclusion II is true.
5) If both conclusions I and II are true.
21. Statements: F \% G, G @ H, H $\Delta \mathrm{J}$

Conclusions : I. F @ H
II. G @ J
22. Statements: J \$ L, L \# B, B @ E

Conclusions: I. E \$ L
23. Statements : R@M, M \% D, D \$H

Conclusions: I. R @ H
II. E \% L
24. Statements: F \$ W, W \# T $\Delta \mathrm{K}$

Conclusions: I. F $\Delta \mathrm{K}$
II. D $\Delta \mathrm{R}$
25. Statements: A \$ V, V \# R, R @ U

Conclusions: I. U $\Delta \mathrm{R}$
II. W \$ K
II. U \# R

Directions ( 26-30): In each question below is given a statement followed by two assumptions numbbered I and II
An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

## Give Answer :

## 1) If only assumption I is implicit.

2) If only assumption II is implicit.
3) If either assumption I or assumption II is implicit.
4) If neither assumption I nor assumption II is implicit.
5) If both the assumptions I and II are implicit.
26. Statement: "Join our Yoga institute to keep yourself completely fit". An advertisement. Assumptions:
I. People may prefer exercise to medication.
II. There is an awareness to a great extent about Yoga exercises among people.
27. Statement : "Enroll with us before 30th November to get the advantage of our $20 \%$ discount offer". An advertisement by a coaching class.

## Assumptions:

I. Discount offer is bound to attract good students as well.
II. Even those students who cannot afford to pay the fees of coaching classes may join this class.
28. Statement : If you want to get a good job you must have at least the basic knowledge of computers.

## Assumptions :

I. All good jobs involve use of computers.
II. Computer knowledge has been made an essential criterion by most of the companies nowadays.
29. Statement : As a measure to avoid occurance of the epidemics due to monsoon the civic authorities have organized free vaccination camps all over the city.

## Assumptions :

I. There may be a good response to the camps since organized by civic authorities.
II. People are generally aware about the need for vaccination.
30. Statement : In view of the large number of cases of suicides committed by the farmers in State X the State Government has decided to waive off the agricultural loans granted to the farmers.

## Assumptions :

I. This may stop further cases of suicides committed by the farmers in State X.
II. This move of the Government may be welcomed by the public at large.

Directions (31-35): In making decisions about important questions, it is desirable to be able to distinguish between /strong' arguments and 'weak' arguments. 'Strong' arguments must be both important and directly related to the question. 'Weak' arguments may not be directly related to the question and may be of minor importance or may be related to the trivial aspects of the question.
Each question below is followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

## Give Answers:

1) If only argument I is strong.
2) If only argument II is strong.
3) If either argument I or II is strong.
4) If neither argument I nor II is strong.
5) If both arguments I and II are strong.
31. Will introduction of quota for backward classes in the institutes for higher studies be the right move to do the social justice?

## Arguments :

I. No, with this very few seats will be left for unreserved classes which is unfair to the deserving candidates and particularly to those who are economically backward.
II. Yes, it is necessary to give them opportunities to rise upto the level of general category candidates.
32. Should there be a complete ban on bursting crackers including fireworks barring a few occasions in our country? Arguments:
I. No, people should be allowed to enjoy on all occasions according to their interests and priorities.
II. Yes, bursting crackers causes a lot of sound and air pollution which are hazardous to health.
33. Should the use of calculators be permitted in all university examinations?

## Arguments :

I. Yes, there is no need to do manual calculations in the era of computers, only the knowledge of method should be given importance.
II. No, students should do the manual calculations so as to understand the concepts.
34. Should the city development authorities encourage construction of shopping malls which may result into closure of smaller shops ?

## Arguments :

I. Yes, in shopping malls one can get everything under one roof at a cheaper rate.
II. No, it will not be convenient for many people to go to a shopping mall for purchases of day-
to-day requirements.
35. Should there be a ban on affiliation of students' unions to political parties ?

## Arguments:

I. Yes, the political parties fakx undue advantage of the students' unions to fulfil their own selfish interests,
II. No, without the support of political parties students unions will not be able survive.

Directions (36-40) : A private firm has laid down following criteria for selection of Executive Officers (Finance) : The candidate must-
(i) Be a graduate in any discipline in first class with minimum $60 \%$ marks.
(ii) Have obtained post-graduate management degree /diploma with specialization in finance with minimum 55\% marks.
(iii) Be willing to work anywhere in India.
(iv) Be not less than 22 years and not more than 28 years of age as on 1.10.2006.
(v) Have cleared the selection test with minimum $50 \%$ marks.

However, if a candidate satisfies all the above mentioned criteria except-
(a) At (ii) above but has done post-graduation in Economics with minimum 60\% marks or has passed CA/ICWA exam, the case may be referred to the CEO of the firm.
(b) At (i) above but has a post-qualification experience of at least 2 years in finance department, the case may be referred to the board of directors.
In each question below information about one candidate is given. You have to study the information provided with reference to the criteria and conditions given above and take one of the following courses of actions. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 1.10.2006.

## Mark Answers:

1) If the case is to be referred to the CEO.
2) If the case is to be referred to the board of directors.
3) If the data provided is inadequate to take a decision.
4) If the candidate is to be selected.
5) If the candidate is not to be selected.
36. Harish Bellary is 24 years old Science graduate with $67 \%$ marks and first class. He has passed MBA in finance with $60 \%$ marks. He has obtained $58 \%$ marks in the selection test.
37. Akhilesh Kapoor is a Commerce graduate with $66 \%$ marks and first class. He has cleared ICWA exam in November 2004. His date of birth is 17.9.1984, He is willing to work anywhere in the country. He has secured $63 \%$ marks in selection test.
38. Sangeeta Sharma is B. Sc.(Agri) with $72 \%$ marks and second class. She has passed postgraduate management diploma in Finance with 65\% marks and thereafter she has been working in finance department of a cooperative bank for last 3 years. Her date of birth is 21.12.1979. She has no problem in working anywhere in India. She has cleared the selection test with $58 \%$ marks.
39. Nikita Sahoo is an MBA with specialization in Finance, passed in June 2004 at the age of 24 years with $57 \%$ marks. She has passed B.A. in first class with $64 \%$ marks. She has cleared the selection test with $60 \%$ marks. She is willing to work anywhere in the country.
40. Rajani Sinha is first class Engineering graduate passed with $69 \%$ marks. She has done MBA with specialization in Marketing passed with $60 \%$ marks. Her date of birth is 26.05.1981. She has cleared the selection test with. $62 \%$ marks.

Direction (41-50) : in each of the questions given below which of the five answers figures on right should come after the problem figures on the left, if the sequence were continued?

42.

43.

44.


46.



50.


## ENGLISH LANGUAGE

Directions (51-69): Read the following passage carefully and answer the questions given below it

During the last two decades physician and mental health professional have begun to discover the limitations of the Western allopathic medicine.

The focus on pathology and disease rather than on prevention, the destructiveness of so many pharmaceutical and surgical remedies, the separation of physical and emotional problems, the assumption of an asymmetrical relationship between an all powerful physician and a submissive patient have led clinicians and researchers to look for answers in other traditions and cultures.

It is indeed disappointing, in this context, that in India with its long tradition of the bodymind continuum, health efforts are so largely dependent on the allopathic system which is now being increasingly rejected by Western medical scientists. However, any wide open, fuzzy field like "holistic health" offers abundant opportunity for fraud and over-promise. The new paradigm of health is not a license for quackery. Holistic health is a perspective, not a specialization or a discipline.

The body-mind is a process, so is disease a process, so is healing or making whole.
It was discovered that it is not a simple physical change but rather the state of mind that is the key to health. This state has been called 'restful alertness', 'passive volition' 'deliberate letting'* Cumulative stresses seem to melt under this seemingly paradoxical state, restoring natural flow to the body whirlpool.

Clearly health services, as we know them are essential but equally clearly, they are not enough. There is an urgent need to blend the ancient traditional ways with some of the discoveries of modern medicine to make for a truly healthy society,; The first and most important area deserving urgent attention is child health care.

Conventionally, it is the doctor and the hospitals that are seen today at the centre of all health care, the mother and the child are at the periphery. It is perhaps necessary to see the mother as the centre of child health care. It is she who is the highest level health worker-not by training or in qualifications but in time and love, in the special knowledge of her own children, in the breadth of "integrated service" she provides and in the permanent presence she brings to her child's life. This indeed was the basis'of the ancient child care practices and it is well that it is being rediscovered now. The implications of this are rather manifold: Mother must be imparted the knowledge, skills and techniques required for her to do the job well. The old civilizations did this through word of mouth from one generation to another. Modern civilizations can improve on this but the essence will remain the same.
51. In the context of the passage, which of the following statements is definitely TRUE about Western allopathic system ?

1) It is an extension of India's ancient medical system
2) It is being largely practiced in India today
3) It emphasizes holistic approach
4) It considers diseases less important than patients
5) It considers medical practitioners less important than patients
52. In the context of the passage, practice of Western allopathic medicine puts an accent on all of the following except
1) eradication of symptoms of diseases 2) pharmaceutical remedies
2) surgical remedies 4) dissociation of physical symptoms from emotional factors
3) prevention of diseases
53. Which of the following is TRUE of holistic approach in medicine ? *
1) It is as susceptible to fraudulent practices as any other approach
2) It is a highly specialized branch of medicine
3) It is in tune with Western culture and tradition
4) It gives priority to treatment of the disease rather than the treatment of the patient
5) It emphasizes an asymmetrical relationship between . body and mind
54. Whfch of the following is the surest way of ensuring a truly healthy society ?
1) Resorting to practice of ancient medical system only
2) Increasing facilities of Western allopathic medicine
3) Judicious blending of traditional system with modern system of treatment
4) Training of mothers by imparting them more knowledge of health care
5) Taking precautionary measures against quackery in the medical field
55. 'The importance of which of the following is the greatest in medical treatment?
1) Physical problems
2) State of mind
3) Symptoms of disease 4 4) Hospital treatment 4 ) Pharmaceutical remedies
56. Which of the following plays the pivotal role in child health care ?
1) Nature
2) Home
3) Hospital
4) Nurse
5) Mother
57. Which of the following five terms is not synonymous with the remaining four ?
1) Peaceful attentiveness
2) Restful alertness
3) Passive volition
4) Body-mind whirlpool
5) Deliberate-letting
58. A physician is unable to play a primary role in child health care because he lacks
1) training in child health care 2) qualifications to treat children
2) complete knowledge of the child 4) experience in careful handling the child ${ }^{\text {4) }}$ ) None
59. Allopath has been found deficient of late because of all of the following reasons except
1) neglect of the principle of prevention is better than cure
2) ill-effects of surgical remedies
3) ill-effects of drugs
4) neglect of patient-oriented treatment
5) None
60. The passage brings out the difference in all of the following cases except
1) modern and ancient role of mother in child health care
2) ancient Indian and modern Western system of medicine
3) treatment of the patient and the disease 4) importance of the patient and of the doctor
4) treatment of body alone and of body and mind together

Directions (61-65): Choose the word that is most nearly the SAME in meaning to the word given in bold as used in the passage,
61. Paradigm

1) solution
2) model
3) discovery
4) invention
5) treatment
6) firmness
7) strength
8) will
9) mood
10) approach
63. Essence
1) scent
2) gist
3) nature
4) principle
5) summary
64. Perspective
1) view
2) outlook
3) prospect
4) glimpse
5) system
65. Focus
1) light
2) attention
3) point
4) emphasis
5) center

Directions (191-194): Choose the word that is most nearly the OPPOSITE in meaning to the word given in bold as used in the passage.
66. Holistic

1) negative
2) piecemeal
3) impure
4) inadequate
5) singular
67. Submissive
1) dominating
2) arrogant
3) impudent
4) mild
5) meek
68. Separation
2) unity
3) inclusion
4) amalgamation
5) integration
69. Integrated
1) disjoined
2) careless
3) loose
4) partial
5) divided

Directions (70-76): Which of the phrases/words 1), 2), 3), 4) and 5) should replace the phrases/words given in bold in each of the following sentences to make the sentences most effective and meaningfully correct If the sentences is correct as it is and no correction in required, mark 5) as the answer.
70. I love the literature, the music, the art.

1) the literature, music and art
2) literature, music and art
3) literature, music, the art
4) No correction required
71. It will take three hours to walk across the forest,
1) into
2) between
3) through
4) over 5) No correction required
72. You are a most unusual person.
1) mostly
2) a mosdy
3) most
4) the mosdy 5) No correction required
73. The valley lied quiet and peaceful in the sun.
1) lied quietly and peacefully
2) lay quiedy and peacefully
3) lied quiet and peaceful
4) lay quiet and peaceful
5) No correction required.
74. The beautiful is not always the same like the good,
1) as like the good
2) like good
3) as the good
4) as good
5) No correction required.
75. He is too kind man to refuse to help in such a case,
1) too kindly a
2) too kind a
3) a too kindly
4) a too kind 5) No correction required
76. All along the journey she remained silent.
1) all dining the journey
2) all through the journey
3) all along iri the journey 4) throughout all journey
4) No correction required

Directions (77-86): In each of the following select the most appropriate word from among the five words given below the sentence to fill in the blank so as to complete it meaningfully.
77. I am sorry that I have been unable to find a suitable vacancy for you. The $\qquad$ is that most of the vacancies require technical qualification that you do not possess.

1) problem
2) thing
3) matter
4) requisite
5) prerequisite
78. Undoubtedly, English is the most.
(....... spok widely
as ............
guage in the world today.
1) elaborately 2) gready
2) broadly
3) beautifully
79. If he is an enemy, we will treat him as ...........
$\begin{array}{llll}\text { 1) same } & \text { 2) such like } & \text { 4) so }\end{array}$
5) it
80. English is not static either in vocabulary or in grammar ... $\qquad$ yet in that elusive quality called style.
1) not
2) or
3) nor
4) had
5) were
6) have
7) but
8) so
9) had
10) are
11) been
81. Two yea
$\qquad$
82. The journey may be made by sea or.
........... byroad.
1) alternately
2) alteringly
3) conversely
4) alternatively
5) entirely
83. He has not yet attained the age of 21 . He has, therefore, no $\qquad$ to vote in this election.
1) power
2) claim
3) right
4) authority
5) permission
84. The President today ............ the committee with the induction of the five new general secretaries in place of those dropped.
1) reconstituted 2) reviewed
2) formed
3) enlarged
4) supplemented
85. To say that a rectangle will never be a square because it is a rectangle is simply to $\qquad$ . the very thing you profess to prove.
1) ensure
2) insure
3) assume
4) contradict
5) subsume
86. Traffic problems in Bombay are as serious as in another city in India, and they are compUcated by digging of roads by corporations on this or that. $\qquad$
4) instance
5) pretext
6) aspect
7) period
8) intention

Directions (87-92): In each sentence, a word is given in bold. Below each sentence there are five other words. From them you have to choose one word for the bold word in the sentence in such a way that the meaning of the sentence does not change.
87. The written examination for officer's recruitment comprises four objective type tests,

1) expresses
2) involves
3) retains
4) incorporates
5) consists
88. The members of the committee discussed the issue for about an hour but they were not able to arrive at any consensus,
1) settlement
2) consent
3) agreement
4) harmony
5) unity
89. The law of this land prohibits all men and women from imbibing alcoholic drinks.
1) smuggling
2) checking
3) drinking
4) preparing
5) offering
90. By what criterion will you judge this periodical?
1) consideration 2) result
2) decision
3) standard
4) approach
91. I have a provisional license.
1) permanent
2) temporary
3) transient
4) routine
5) restricted
92. How did Laxman acquire his fortune ?
1) lose
2) accept
3) gain
4) spend
5) receive

Directions (93-100): In thefollowing passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each five words are suggested one of which fits the blank appropriately. Find out the appropriate words.
The $\mathbf{9 3}$ of today is a huge financial undertaking with the same oudook as any other limited company. The $\mathbf{9 4}$ staffs have to make circulation, and if they do not they will soon be $\mathbf{9 5}$ by those who can. Their independence, therefore, suffers a grave limitation. It is further $\mathbf{9 6}$ by the fact that a newspaper is as much an advertising medium as a vehicle for $\mathbf{9 7}$ It is said that the $\underline{98}$ which the public pays for its newspaper covers no more than a third of the $\underline{99}$ of production; the other two thirds is accounted $\mathbf{1 0 0}$ by advertisement revenue.

| 93. | 1) newspaper | 2) hospital | 3) school | 4) theatre | 5) library |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 94. | 1) medical | 2) performing | 3) teaching | 4) editorial | 5) company |
| 95. 1) sustained | 2) treated | 3) cured | 4) covered | 5) supplanted |  |
| $96 . ~ 1) ~ d e s t r o y e d ~$ | 2) depend | 3) curtailed | 4) failed | 5) aggravated |  |
| 97. | 1) epidemic | 3) training | 4) business | 5) patients |  |
| 98. | 1) value | 2) tax | 3) price | 4) cost | 5) fee |
| 99. | 1) expenses | 2) sale | 3) amount | 4) price | 5) cost |
| 100. 1) into | 2) in | 3) from | 4) for | 5) with |  |

## QUANTITATIVE APTITUDE

Directions (101-105): What approximate value should come in place of the question-mark (?) jn the following questions ?
101. $724.998 \div 24.048 \div 14.954=$ ?

1) 8
2) 13
3) 2
4) 10
5) 16
102. $(848.999+274.052) \div 3.0054=$ ?
1) 940
2) 836
3) 184
4) 298
5) 374
103. $\sqrt[3]{84900}=$ ?
1) 56
2) 44
3) 67
4) 33
5) 21
104. $18.5 \%$ of $425+16.2 \%$ of $388=$ ?
1) 141
2) 224
3) 116
4) 183
5) 215
105. $18.345 \times 19.068 \times ?=11538.93375$
1) 46
2) 61
3) 27
4) 33
5) 55

Directions (106-110) : Study the following Pierchart carefully and answer the questions given below:
Statistics of a Survey on the food item's preference of the people $v$ conducted on a sample of 30000 people.

106. What is the total number of people preferring vegetables and those preferring sprouts ?

1) 11900
2) 12300
3) 12500
4) 11500
5) None
107. What is the difference between the total number of people preferring meat to the total number of people preferring fish ?
1) 150
2) 200
3) 300
4) 350
5) None
108. People preferring fruits are approximately what per cent of the people preferring vegetables ?
1) 48
2) 35
3) 46
4) 37
5) 30
109. Out of the total sample population, how many people have given preference for fish ?
1) 1600
2) 1800
3) 1500
4) 1400
5) None
110. What is the respective ratio of the number of people preferring meat to the number of people preferring salad?
1) $2: 5$
2) $3: 5$
3) $2: 3$
4) $4: 3$
5) None

Directions(111-115): In the following number series only one number is wrong. Find out the wrong number.
111. $529841961 \quad 1296 \quad 1681 \quad 1849 \quad 2209$

1) 1296
2) 841
3) 961
4) 1681
5) None
112. $13 \begin{array}{lllllll}14 & 27 & 45 & 68 & 109 & 177\end{array}$
1) 27
2) 109
3) 45
4) 68
5) None
113. $14 \quad 22 \quad 34.5 \quad 55.5 \quad 87.25 \quad 135.875 \quad 209.8125$
1) 55.5
2) 34.5
3) 135.875
4) 87.25
5) None
114. $274 \quad 301 \quad 426 \quad 769 \quad 1498 \quad 2824 \quad 5026$
1) 301
2) 426
3) 769
4) 2824
5) None
115. 28160

990
$6970 \quad 55832$
502350

1) 160
2) 990
3) 55832
4) 6970
5) None

Directions (116-120): What should come in place of the question-mark (?) in the following questions?
116. $8^{9.4} \times 4^{12.8} \times 64^{8.1}=16^{?}$

1) 41.8
2) 16.2
3) 18.4
4) 25.6
5) None
117. $\frac{8 \div ? \times 3.5}{4 \times 5 \div 2}=0.7$
1) 2
2) 6
3) 10
4) 3
5) None
118. $4 \frac{16}{17} \times 1 \frac{11}{16} \div \frac{7}{38}=$ ?
1) $12 \frac{3}{17}$
2) $45 \frac{9}{34}$
3) $12 \frac{21}{34}$
4) $36 \frac{8}{17}$
5) None
119. $(15)^{2}+(10)^{2}+(6)^{2}=(?)^{2}$
1) 130321
2) 361
3) 103041
4) 17
5) None
120. $12 \%$ of $840 \times 0.25 \%$ of $148=$ ?
1) 37.296
2) 101.17
3) 68.432
4) 97.046
5) None
121. A shopkeeper sells 200 metres of cloth for Rs. 9000 at profit of Rs. 5 per metre. What is the cost price of 1 metre of cloth ?
1) Rs .45
2) Rs. 40
3) Rs. 35
4) Rs .30
5) None
122. The area of a circle is 1386 sq. cms. What is the circumference of the circle ?
1) 142 cm
2) 160 cm
3) 130 cm
4) 132 cm
5) None
123. In a college a total number of 27 professors are appointed for all the faculties viz, Arts, Commerce and Science. If equal number of professors are appointed for each of the faculties, how many professors are assigned to each faculty?
1) 9
2) 12
3) 6
4) 3
5) None
124. If $(11)^{2}$ is subtracted from the square of a number, the answer so obtained is 135 . What is the number?
1) 12
2) 18
3) 17
4) 13
5) None
125. If the cost of 7 kg . of rice is Rs. 168 , what is the cost of 105 kg . of rice?
1) Rs. 2580
2) Rs. 2530
3) Rs. 2520
4) Rs. 2500
5) None
126. Seema and Meena divide a sum of Rs. 2500 in the ratio of $3: 2$ respectively. If Rs. 500 are added to each of their shares, what wouid be the new ratio formed?
1) $2: 3$
2) $3: 4$
3) $5: 4$
4) $4: 3$
5) None
127. Sridhar invests Rs. 3750 in shares, which is $25 \%$ of his monthly income. What is his monthly income?
1) Rs. 12000
2) Rs. 15000
3) Rs. 10000
4) Rs. 16000
5) None
128. Find the average of the following set of scores.
$302,152,132,122,112$
1) 184
2) 165
(3) 152
3) 176
4) None
129. A bus covers a distance of 172 km in 4 hours. What is the speed of the bus ?
1) $52 \mathrm{~km} / \mathrm{hr}$
2) $47 \mathrm{~km} / \mathrm{hr}$
3) $43 \mathrm{~km} / \mathrm{hr}$
4) $38 \mathrm{~km} / \mathrm{hr}$
5) None
130. The total number of students in the school are 4800 , out of which $60 \%$ are girls. What is the total number of boys in this school?
1) 1920
2) 1934
3) 1980
4) 1910
5) None

Directions(131-135): Each of the questions below Consists of a question and two statements numbered I and II. 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.
2) if the data in Statement II alone are sufficient to answer the question, While the data in Statement I alone are not sufficient to answer the question.
3) if the data either in Statement I alone or in Statement II alone are sufficient to answer the question.
4) if the data in both the Statements I and II together are not sufficient to answer the question.
5) if the data in both the Statements I and II together are necessary to answer the question.
131. What is Nidhi's age?
I. Nidhi is 3 times younger to Rani.
II. Surekha is twice the age of Rani and the sum of their ages is 72 .
132. What is the ratio of the total number of girls to the total number of boys in the school ?
I. The ratio of the total number of boys to the total number of girls, last year was $4: 5$.
II. There are 3500 students in the school out of which $60 \%$ are boys.
133. What is the speed of the bus ?
I. The bus covers a distance of 80 km in 5 hrs .
II. The bus covers a distance of 160 km in 10 hrs .
134. What is the ratio of the number of freshers to the number, of seniors in a college ?
I. The ratio of males and females in the college is $2: 3$.
II. There are 1125 female freshners in the college.
135. What is Mr. Mehta's present income ?
I. Mr. Mehta's income increases by $10 \%$ every year.
II. His income will increase by Rs. 2500 this year.

Directions (136-140): Study the following graph carefully to answer these questions.
Production of Commodities $X \& Y$ over the years

136. For which of the following pair of years the total production of the two commodities together is equal ?

1) 1997 and 2000
2) 2002 and 2003
3) 2001 and 2003
4) 1998 and 1999
5) 1998 and 2000
137. What is the respective ratio between total production commodities X and Y respectively for aii the seven years together?
1) $26: 27$
2) $13: 14$
3) $27: 26$
4) $14: 13$
5) None
138. During which year the percentage increase/decrease in production of commodity ' X ' from the previous year was the maximum ?
1) 1998
2) 2000
3) 2003
4) 2002
5) None
139. Approximately, what was the average production (in lakh tonnes) of commodity ' Y ' ?
1) 225
2) 216
3) 195
4) 185
5) 205
140. What is the ratio between total production of the two commodities together for years 1997, $1998 \& 1999$ and the total production of the two commodities together for years 2001,2002 \& 2003 respectively ?
1) $9: 13$
2) $13: 18$
3) $18: 13$
4) $10: 13$
5) None
141. The owner of a furniture shop charges his customers $12 \%$ more than the cost price. If a customer paid Rs. 14056 for a dining table, what is the cost price of the dining table ?
1) Rs. 14000
2) Rs. 12500
3) Rs. 13540
4) Rs. 11550
5) None
142. The difference between $55 \%$ of a number and $25 \%$ of the same number is 11.10 . What is $75 \%$ of that number?
1) 27.75
2) 37
3) 21.25
4) 45
5) None
143. The product of two successive numbers is 1980 . Which is the smaller number ?
1) 34
2) 44
3) 35
4) 45
5) None
144. Which of the following smallest number should be added to 41116 to make it exactly divisible by 8 ?
1) 8
2) 5
3) 4
4) 12
5) None
145. The difference between $\frac{3}{4}$ th of $\frac{2}{5}$ th of a number and $\frac{4}{5}$ th of $\frac{1}{4}$ th of the same number is 5 . What is the number?
1) 25
2) 40
3) 45
4) 50
5) None

Directions(146-150): Study the following table carefully to answer these questions Marks Obtained by Six Students in Different Subjects at School Examination

| Subject <br> Student | Marks Obtained Out of |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | History <br> $(\mathbf{7 5 )}$ | Geography <br> $\mathbf{( 7 5 )}$ | Science <br> $(\mathbf{1 2 0 )}$ | Maths <br> $(\mathbf{1 5 0 )}$ | English <br> $\mathbf{( 8 0 )}$ | Hindi <br> $(\mathbf{6 0 )}$ |
| P | 45 | 53 | 100 | 117 | 50 | 45 |
| Q | 56 | 58 | 96 | 132 | 46 | 50 |
| T | 48 | 60 | 112 | 120 | 52 | 42 |
| D | 62 | 67 | 88 | 108 | 48 | 34 |
| G | 66 | 55 | 92 | 140 | 60 | 32 |
| F | 54 | 64 | 108 | 116 | 53 | 40 |

146. What is the average percentage of marks obtained by all the students in Science ? (Rounded off to two digits after decimal)
1) 99
2) 82.78
3) 88.72
4) 78.88
5) None
147. What is the overall percentage of marks obtained by D in all subjects ?
(Rounded off to two digits after decimal)
1) 72.88
2) 76.28
3) 73.17
4) 72.68
5) None
148. What are the average marks obtained by all students in English ?
1) 52.5
2) 64.38
3) 56.38
4) 60.5
5) None
149. What is the ratio between total marks obtained in all subjects by F and G respectively ?
1) $87: 89$
2) $89: 87$
3) $67: 69$
4) $69: 67$
5) None
150. Which student has scored in Maths closest to the average marks in Maths ?
1) $P$
2) Q
3) T
4) F
5) None

## PROFESSIONAL KNOWLEDGE (IT)

151. Computer read which type ' code I
(1) binary code
(2) English letter
(3) character
(4) integer
(5) None of these
152. Hamming distance is'
(1) a theoretical way of measuring errors
(2) a technique for assigning codes to a set of items known to occur with a given probability
(3) a technique for optimizing the intermediate code
(4) All of the above
(5) None of these
153. To find the shortest-path in a weighted graph or network, which of the following algp-rithm is not used?
(1) Warshall's algorithm
(2) Dijkastra algorithm
(3) Kruskal algorithm
(4) All of the above
(5) None of these
154. The page replacement policy that some times leads to more page faults when the size of the memory is increased, is
(1) FIFO
(2) LRU
(3) MRU
(4) Optimal
(5) None of these
155. The PPP replaced.
(1) HDLC
(2) OSPF
(3) SLIP
(4) PAP
(5) None of these
156. The gate whose output is low if and only if all inputs are high, is
(1) NAND
(2) AND
(3) OR
(4) All of these
(5) None of these
157. The ABC bank has implemented WLAN in its network when two or more devices in the network send data at the same time to another device, the network faces the media access problem. Which algorithm should the network administrator use to resolve the problem?
(1) CSMA/CA
(2) CSMA/CD
(3) SSID Cloaking
(4) MAC Address Filtering
(5) None of these
158. Virtual functions allows you to
(1) create an array of type pointer to base class that can hold pointers to derived classes
(2) use the same function call to execute member functions of objects from different classes.
(3) create function that have no body.
(4) group objects of different classes so they can all be accessed by the same function code.
(5) None of these
159. Communication circuits that transmit data in both directions but not at the same time are operating in :
(1) a simplex mode
(2) a half duplex mode
(3) a full duplex mode
(4) an asynchronous mode
(5) None of these
160. Critical section is a program segment
(1) which should run in a certain specified amount of time
(2) which avoids deadlock
(3) where shared resources are accessed
(4) which must be endorsed by pair of semaphore operation P and V
(5) None of these
161. A Recurrence Relation
(1) Fibonacci sequence of numbers are type of Recurrence relation
(2) It is called difference equation when two terms will be used interchangeably.
(3) Numeric function is ref-ered to as the solution of the recurrence relation
(4) All of the above
(5) None of these
162. Non planar graph with minimum number of vertices have
(1) 9 edges, 6 vertices
(2) 6 edges, 4 vertices
(3) 10 edges, 5 vertices
(4) 9 edges, 5 vertices
(5) None of these
163. A language is regular if and only if it is accepted by a finite automation'.
(1) The given statement is true (2) The given statement is false
(3) The given statement is partially true
(4) Sometimes true, sometimes false(5) None of these
164. Fastest speed
(1) LAN
(2) token bus
(3) ring
(4) FDDI ring
(5) None of these
165. 

(1) Reverse engineering
(2) Software restructuring
(3) Forward engineering
(4) Software maintenance
(5) None of these
166. Once object oriented programming has been accomplished, unit testing is applied for each class. Class tests include-
(1) Fault-based testing
(2) Random testing
(3) Partition testing
(4) All of the above (5) None of these
167. There are occasions when it does not matter if the function produces 0 or 1 for a given minterm. Minterms that may produce either 0 or 1 for the function are said to be
(1) Careless conditions
(2) Don't care condition
(3) Minterm condition
(4) Maxterm condition
(5) None of these
168. All the vertices of a walk except very first and very last vertex, is called-
(1) Internal vertices
(2) External vertices
(3) Intermediate vertices
(4) Adjacent vertices
(5) None of these
169. The library* files' that come with C are
(1) Text editor for program development
(2) the compiler and linear
(3) program examples
(4) files that contain functions which carry out various commonly used operations and calcula tions
(5) None of these
170. Which of the follwing are valid characters constant?
(1) 'in'
(2) ' 11 ’
(3) ' 10 ’
(4) all of the above
(5) None of these
171. In problem analysis, what is to be done?
(1) Structure information
(2) Data flow diagram and data dictionary
(3) Structured analysis \& prototyping
(5) None of these
(4) All of the above
172. Which of the following is a phase of RAD model?
(1) Business modeling
(2) Data modeling
(3) Application generation
(4) All of the above
(5) None of these
173. A comment
(1) is a note that can be put into the source code
(2) is ignored by the compiler
(3) starts with the/* character pair (4) All of the above
(5) None of the above
174. Which of the following is not relevant to networking
(1) low end stand along hubs
(2) stackable hubs
(3) meshnetwork
(4) bus hubs
(5) None of these
175. In C++, a function contained within a class is called a-
(1) In built function
(2) User defined function
(3) Member function
(4) All of these
(5) None of these
176. A template can be used to create a family of-
(1) Classes
(2) Functions
(3) Class and function
(4) All of these
(5) None of these
177. Context free grammar is
(1) A compiler
(2) A language generator
(3) A regular expression
(4) All of these
(5) None of these
178. Chaining and Indexing are the starategies of
(1) Contiguous allocation
(2) Non-contiguous allocation
(3) Partition allocation
(4) Static allocation
(5) None of these
179. The POST is a series of. tests.
(1) 14
(2) 13
(3) 12
(4) 11
(5) None of these
180. A path in graph G, which contains every vertex of G once and only once?
(1) Eular tour
(2) Hamiltonian path
(3) Eular trail
(4) Hamailtonian tour
(5) None of these
181. A tree structured file directory system:
(1) allows easy storage and retrieval of file names
(2) is a much debated unnecessary feature
(3) is not essential when we have millions of files
(4) All of the above
(5) None of these
182. The scope resolution operater usually
(1) Specifies a particular class
(2) one base class and more than one derived class
(3) resolve ambiguities
(4) All of the above
(5) None of these
183. 'Person' is
(1) Object
(2) Class
(3) Attribute
(4) Structure
(5) None of these
184. Zero has two representations in
(1) sign magnitude
(2) l's complement
(3) 2 scomplement
(4) All of the above
(5) None of these
185. Which are. not property of Binary relations
(1) reflexive relation, symmetric relation, anti symmetrical relation
(2) reflexive, transitive, equivalence relations
(3) transitive, partial ordering relation, symmetric
(4) reflexive, partial, chain relation
(5) None of these
186. Which of the following are loaded into main memory when the computer is booted?
(1) Internal Command instructions
(2) External Command Instructions
(3) Utility programs
(4) Word Processing Instruction
(5) None of these
187. A relation is said to be in INF if:
(1) there is no duplication of data
(2) there are no composite attributes in the relation
(2) there are only a few composite attributes
(4) all attributes are of uniform type
(5) None of these
188. Which is false
(1) QBE is based on domain relational calculus.
(2) QUEL is based on tuple relational calculus.
(3) Datalog is based on logical programming language
(4) All of the above
(5) None of these
189. The number of flip-flops required in a modulo N counter is
(1) $\log 2(N)+1$
(2) $\operatorname{llog} 2(\mathrm{~N})]$
(3) $[\log 2(N) 1$
(4) $\log 2(\mathrm{~N}-1)$
(5) None of these
190. A linker is given object modules for a set of programs that were compiled separately. What information need not be included in the object module?
(1) Object module
(2) Relocation bits
(3) names and locations of all external symbols defined in the object module
(4) Absoulte address of internal symbols
(5) None of these
191. Clipping
(1) It identifies those portion of a picture that are either inside or outside of specified region of space is referred to as clipping algorithm
(2) There are five types of clipping
(3) Point clipping, Line clipping, Area clipping, Curve clipping Text clipping are examples of clipping
(4) All of the above
(5) None of these
192. In operand
(1) data to be operated
(2) Operand include 8 bit 16 bit data an internal resigters, a memory location
(3) It include also 8 bit or 16 bit address
(4) All of the above
(5) None of these
193. The PPP frame consists of .............. fields.
(1) 7
(2) 5
(3) 6
(4) 8
(5) None of these
194. The 'end' manipulator?
(1) appends null character to the stream and flushes it.
(2) causes the next output to be on new line
(3) just flushes the stream (4) All of the above (5) None of these
195. The minimum number of inter chnges needed to convert the array
$89,19,40,17,12,10,2,5,7,11,6,9,70$ into heap with maximum element at the root is (1) 0
$\begin{array}{ll}\text { (2) } 1 \text { (3) } 2 & \text { (4) } 3 \text { (5) None of these }\end{array}$
196. Which of the following does not form part of an ATM ?
(1) Processor, Card Reader and Printer
(2) Customer Interface. Panel
(3) Key Board
(4) Dispenser and Depositor
(5) All of the above.
197. An important application of cryptography, used in computerized commercial and financial transaction-
(1) Data mining
(2) Data warehousing
(3) Digital signature
(4) Media convergence
(5) None of these
198. White Box testing, a software testing technique is sometimes called-
(1) Basis path
(2) Graph testing
(3) Data flow
(4) Glass box testing
(5) None of these
199. Which normal form is considered adequate for normal relational database design?
(1) 2 NF
(2) 5 NF
(3) 4 NF
(4) 3NF
(5) None of these
200. In a circular linked list, insertion of a record involves modification of
(1) One pointer
(2) two pointer
(3) Multiple pointer
(4) no pointer
(5) None of these

|  |  |  |  | KEY |  |  |  |  | 10.5 | 11.4 | 12.4 | 13.2 | 14.3 | 15.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.1 | 2.3 | 3.5 | 4.4 | 5.2 | 6.2 | 7.4 | 8.5 | 9.4 |  |  |  |  |  |  |
| 16.2 | 17.5 | 18.1 | 19.1 | 20.3 | 21.4 | 22.1 | 23.2 | 24.1 | 25.3 | 26.5 | 27.1 | 28.5 | 29.5 | 30.5 |
| 31.1 | 32.2 | 33.1 | 34.5 | 35.1 | 36.3 | 37.1 | 38.2 | 39.4 | 40.3 | 41.3 | 42.4 | 43.4 | 44.5 | 45.3 |
| 46.2 | 47.2 | 48.5 | 49.1 | 50.4 | 51.2 | 52.5 | 53.1 | 54.3 | 55.2 | 56.5 | 57.4 | 58.3 | 59.5 | 60.1 |
| 61.2 | 62.3 | 63.2 | 64.1 | 65.4 | 66.2 | 67.1 | 68.5 | 69.3 | 70.3 | 71.3 | 72.5 | 73.2 | 74.3 | 75.2 |
| 76.4 | 77.1 | 78.3 | 79.2 | 80.2 | 81.3 | 82.4 | 83.3 | 84.1 | 85.3 | 86.5 | 87.5 | 88.3 | 89.3 | 90.4 |
| 91.2 | 92.3 | 93.1 | 94.5 | 95.5 | 96.5 | 97.4 | 98.3 | 99.5 | 100.4 | 101.3 | 102.5 | 103.2 | 104.1 | 105.4 |
| 106.5 | 107.3 | 108.4 | 109.3 | 110.1 | 111.1 | 112.3 | 113.2 | 114.4 | 115.3 | 116.4 | 117.5 | 118.2 | 119.5 | 120.1 |
| 121.2 | 122.4 | 123.1 | 124.5 | 125.3 | 126.4 | 127.2 | 128.5 | 129.3 | 130.1 | 131.5 | 132.2 | 133.3 | 134.4 | 135.5 |
| 136.4 | 137.1 | 138.1 | 139.3 | 140.2 | 141.5 | 142.1 | 143.2 | 144.3 | 145.4 | 146.2 | 147.4 | 148.5 | 149.1 | 150.3 |
| 151.1 | 152.1 | 153.1 | 154.1 | 155.3 | 156.1 | 157.1 | 158.2 | 159.2 | 160.3 | 161.4 | 162.4 | 163.1 | 164.4 | 165.2 |
| 166.4 | 167.2 | 168.1 | 169.4 | 170.4 | 171.2 | 172.4 | 173.4 | 174.4 | 175.3 | 176.3 | 177.2 | 178.2 | 179.1 | 180.2 |
| 181.1 | 182.1 | 183.2 | 184.1 | 185.4 | 186.1 | 187.2 | 188.4 | 189.3 | 190.4 | 191.4 | 192.4 | 193.1 | 194.3 | 195.3 |
| 196.3 | 197.3 | 198.4 | 199.4 | 200.2 |  |  |  |  |  |  |  |  |  |  |

