QUESTION BOOKLET SERIES (L)

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Name _____ PRAKASH KUMAR _____

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631-L

QUESTION BOOKLET CODE | 631 |

SEAL

Part – I (Questions : 1 to 40)
भाग – I (प्रश्न : 1 से 40)

Directions (Questions 1-2): *A word has been written in four different ways out of which only one is correctly spelt. Choose the correctly spelt word.*

okk

1. (1) Etiquete   (2) Etiquette
   (3) Ettiquete   (4) Ettiquette

2. (1) Millonare   (2) Millionaire
   (3) Millonare   (4) Millonaire

Directions (Questions 3-6) : *A passage has been broken into five parts. Choose the correct sequence to make it a meaningful passage.*

3. A : The knowledge so far available about the endocrine glands is very limited.
   B : Nature has provided the body with proper regulators and protectors.
   C : These are our endocrine glands.
   D : And so the proper functioning of these controllers of our body is very important and most vital for health.
   E : However, all the medical sciences have accepted the fact that these endocrine glands secrete thousands of different types of hormones directly from our blood.

   (1) ABCDE   (2) BDCAE
   (3) BDEAC   (4) CBADE

4. A : Seconds later, the glaring object swept past and he thought he had out maneuvered it.
   B : While flying over enemy territory, Jones received the warning of an oncoming missile.
   C : He was proved wrong when he saw the vertical tail fins on fire.
   D : Without wasting time, he slammed the throttles forward and made the plane roll into a high speed turn.
   E : Hardly had he responded to the message when he actually saw what every fighter pilot dreaded most.

   (1) BEDAC   (2) BDCEA
   (3) CDEAB   (4) CBADE

5. A : A taxi was summoned and Satish was taken to Lifeline Hospital.
   B : While hurrying home from school, Satish was hit by a car.
   C : Since they did not succeed, they decided to take him to a hospital.
   D : Some people rushed towards him and tried to bring him to his senses.
   E : He was thrown a couple of feet away and lost consciousness.

   (1) ABCED   (2) BDCAE
   (3) BEDCA   (4) CBAED

6. A : Many consider it wrong to blight youngsters by recruiting them into armed forces at a younger age.

B : It is very difficult to have an agreement on an issue when emotions run high.

C : The debate has again come up whether this is right or wrong.

D : In many countries military service is compulsory for all.

E : Some of these detractors of compulsory draft are even very angry.

    (1) ACBED   (2) DCAEB

    (3) BDEAC   (4) DAECB

Directions (Questions 7-10) : *Choose the word which best expresses the meaning of the underlined word in the sentence.*

7. Forgetting their old enmity, they joined hands with a spirit of *camaraderie.*

    (1) animosity   (2) love

    (3) friendliness   (4) trust

8. Rajan employed my friend only when I agreed to *avouch* for his honesty.

    (1) vow   (2) affirm

    (3) pay   (4) guarantee

9. They knew by his *sophomoric* remarks that he was still naive in the field.

    (1) casual   (2) unpalatable

    (3) ignorant   (4) immature

10. They shunned him because he was a *lecherous* man who always looked for an opportunity to cheat others.

    (1) lustful   (2) deceptive

    (3) cunning   (4) dishonest

Directions (Questions 11-14) : *Choose the word which is opposite in meaning of the underlined word in the sentence.*

11. The attack on the freedom of the press is a *retrograde* step.

    (1) declining   (2) progressive

    (3) punitive   (4) stubborn

12. There was no *altruistic* motive that prompted him to help her.

    (1) wicked   (2) brutal

    (3) inhuman   (4) selfish

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13. According to a great philosopher, *magnanimity* in a man implies many other qualities.
    (1) poverty
    (2) jealousy
    (3) meanness
    (4) enmity

14. Her *impetuous* behaviour was attributed to her upbringing.
    (1) swift
    (2) rash
    (3) quiet and gentle
    (4) sluggish

Directions (Questions 15-16) : *Fill in the blank.*

15. Since one cannot read every book, one should be content with making a _____ selection.
    (1) standard
    (2) sample
    (3) moderate
    (4) judicious

16. Some people ____ themselves into believing that they are indispensible to the organization they work for.
    (1) fool
    (2) delude
    (3) force
    (4) denigrate

Directions (Questions 17-20) : *Choose the option which best expresses the meaning of the underlined idiom/phrase in the sentence.*

17. Lord Clive *won his laurels* in the battle of Plassey.
    (1) fought bravely
    (2) defeated his enemies
    (3) acquired distinction
    (4) overpowered his enemies

18. The best policy is *to let sleeping dogs lie.*
    (1) to be liberal
    (2) to be tolerant
    (3) to be neutral
    (4) to avoid discussing troublesome matters

19. He was *in a brown study* and did not seem to catch my point.
    (1) in his study room
    (2) absorbed in reading
    (3) absent-minded
    (4) in a state of shock

20. A good teacher should have the *gift of the gab.*
    (1) a good personality
    (2) a talent for acting
    (3) a talent for speaking
    (4) an interest in discipline

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4

निर्देश (प्रश्न 21-23) : निम्नलिखित शब्दों में सन्धि-विच्छेद करते समय दिए गए विकल्पों में से सही रूप छाँटिए :

21. निष्काम

(1) निष् + काम
(2) नि: + काम
(3) निश + काम
(4) निस् + काम

22. वीरोचित

(1) वीर + उचित
(2) वीर + औचित
(3) वीरो + चित
(4) वि + उचित

23. मदोन्मत्त

(1) मदन + उन्मत्त
(2) मदो + मत्त
(3) मद + उन्मत्त
(4) मदन + मत्त

निर्देश (प्रश्न 24-26) : दिए गए मुहावरे-लोकोक्तियों का सही अर्थ छाँटिए :

24. रंग उड़ना

(1) घबरा जाना
(2) रंग फीका होना
(3) गुलाल बिखेरना
(4) रंग में डूबना

25. विपत्ति मोल लेना

(1) बिना पत्ते की सब्जी लेना
(2) जान-बूझ कर संकट में पड़ना
(3) एक दवाई खरीदना
(4) मुसीबत खरीदना

26. आगे कुआँ, पीछे खाई

(1) दोनों ओर विपत्ति होना
(2) दोनों ओर गहरे गड्ढे होना
(3) पहले कुआँ खोदना, फिर खाई
(4) सामने कुआँ, पीठ पीछे खाई होना

निर्देश (प्रश्न 27-28) : निम्नलिखित शब्दों के लिए इनका उपयुक्त विलोम शब्द (विपरीतार्थक) छाँटिए :

27. गणतन्त्र
   (1) प्रजातंत्र
   (2) हृदयतंत्र
   (3) यन्त्रतंत्र
   (4) राज्यतंत्र

28. गुण
   (1) सगुण
   (2) गुणातीत
   (3) अवगुण
   (4) गान

निर्देश (प्रश्न 29-31) : निम्नलिखित वाक्यांशों के लिए विकल्पों में से उपयुक्त शब्द चुनिए :

29. जिसके समान दूसरा न हो
   (1) अद्वितीय
   (2) अनोखा
   (3) अकेला
   (4) असमान

30. जो परीक्षा में उत्तीर्ण न हो
   (1) असफल
   (2) अनुत्तीर्ण
   (3) अयोग्य
   (4) अवनति

31. जो उपकार को न मानता हो
   (1) कृतज्ञ
   (2) उपकारी
   (3) कृतज्ञ
   (4) अनुपकारी

निर्देश (प्रश्न 32-34) : नीचे दिए गए शब्दों के विकल्पों में से एक शब्द पर्यायवाची (समानार्थी) नहीं है, उसे छाँटिए :

32. तलवार
   (1) खड्ग
   (2) असि
   (3) करवाल
   (4) कुठार

33. गंगा
   (1) भागीरथी
   (2) सुरसरि
   (3) अवतरणी
   (4) मंदाकिनी

34. इन्द्र
   (1) भूपेन्द्र
   (2) शक्र
   (3) सुरपति
   (4) पर्वतारि

निर्देश (प्रश्न 35-37) : दिए गए विकल्पों में से शुद्ध वर्तनी वाला शब्द छाँटिए :

35. (1) शंशय   (2) संस्थ

    (3) ✓ सन्शय   (4) संशय

36. (1) दृष्य   (2) ✓ दृश्य

    (3) द्रिव्य   (4) दृश

37. (1) ठद्योगिक

    (2) ✓ औद्योगिक

    (3) उद्योगिक्

    (4) ओधोगिक

38. दिए गए विकल्पों में से 'सम्राट्' शब्द का स्त्रीलिंग छाँटिए :

    (1) सम्राटी   (2) समराटिन

    (3) ✓ सम्राज्ञी   (4) स्त्री-सम्राट्

39. दिए गए विकल्पों में से 'ज्ञानवती' का पुल्लिंग शब्द छाँटिए :

    (1) ज्ञानवत   (2) ✓ ज्ञानवान्

    (3) ज्ञानयुक्त   (4) ज्ञानेय

40. 'युवा' शब्द का लिंग परिवर्तित करने के लिए निम्नलिखित विकल्पों में से सही शब्द छाँटिए :

    (1) युवी   (2) युवराझी

    (3) ✓ युवती   (4) युवराज

Part – II (Questions : 41 to 200)

41. Alice Munro has been awarded the Nobel Prize for 2013 in the field of

    (1) Medicine.   (2) Economics.

    (3) Literature.   (4) Physics.

42. Which among the following banks celebrated its centenary year in October 2013 ?

    (1) State Bank of Mysore   (2) Syndicate Bank

    (3) Indian Overseas Bank   (4) Allahabad Bank

43. US retail giant Walmart Stores Inc has called off the joint venture (JV) with the ____ in October 2013 ?

    (1) Reliance Group   (2) Bharti Group

    (3) Aditya Birla Group   (4) Tata Group

44. 'Keran', the area recently in the news, is located in which part of India ?

    (1) Unnao Distt in Uttar Pradesh

    (2) Kedarnath Valley, Uttarakhand

    (3) Coastal area in North Odisha

    (4) Northern Kashmir, J&K

45. How many teams took part in the first ever Indian Badminton League (IBL) held in 2013 ?

    (1) 6   (2) 8

    (3) 10   (4) 7

46. Who has been chosen for the 21st Rajiv Gandhi National Sadbhavna Award for his outstanding contribution towards promotion of communal harmony, peace and goodwill ?

    (1) Ud Amjad Ali Khan

    (2) Ud Zakir Hussain

    (3) Pt. Birju Maharaj

    (4) Pt. Vishwa Mohan Bhatt

47. Who has been named for the Tagore Award for Cultural Harmony 2013 ?

    (1)   Pt Ravi Shankar   (2)   Zubin Mehta

    (3)   N C Satyanarayana   (4)   None of these

48. Which of the following days is observed as the "International Day of Charity" ?

    (1)   September 5   (2)   August 22

    (3)   October 3   (4)   July 15

49. Who is the 23rd Governor of the Reserve Bank of India (RBI) ?

    (1)   Raghuram Govind Rajan   (2)   D Subbarao

    (3)   V V Reddy   (4)   None of these

50. Who has been appointed as the new Foreign Secretary of India from August 2013 ?

    (1)   Sujata Singh   (2)   S Jaishankar

    (3)   Ranjan Mathai   (4)   None of these

51. Who among the following is the Director-General, WHO ?

    (1)   Margaret Chan   (2)   Jose Graziano Da Silva

    (3)   Roberto Azevedo   (4)   None of these

52. The recently launched book 'The Good, The Bad and The Ridiculous' is co-authored by Humra Quraishi and

    (1)   Rajmohan Gandhi   (2)   Mark Tully

    (3)   Khushwant Singh   (4)   Taslima Nasrin

53. GSAT-7, India's first full-fledged communication satellite built by ISRO and launched in 2013, is also known by the name

    (1)   Laxmi   (2)   Rukmini

    (3)   Bhagirathi   (4)   Aishwarya

54. Which electronic company has launched the Galaxy Gear, a "Smart Watch" that can run applications and internet with its own family of smart phones ?

    (1)   Apple   (2) Samsung

    (3)   Nokia   (4) LG

55. Which country does well known tennis player Novak Djokovic belong to ?

    (1)   Spain   (2) Switzerland

    (3)   Serbia   (4) Russia

56. Name the ruling political party of the United Kingdom (UK).

    (1)   Conservative Party   (2) Labour Party

    (3)   Liberal Democrats   (4) Democratic Unionist Party

57. The Indian junior women's hockey team has made history by clinching the _____ position at the Junior Women World Cup 2013.

    (1)   First   (2) Second

    (3)   Third   (4) Fourth

58. The acronym IPCC stands for

    (1)   International Political Conference Committee.

    (2)   Intergovernmental Panel on Climate Change.

    (3)   International Protocol on Carbon Compounds.

    (4)   International Parliamentary Cabinet Committee.

59. The G-24 Ministerial Meeting and G-20 Finance Ministers' and Central Bank Governors' Meeting took place in October 2013 at

    (1)   Brisbane   (2) Saint Petersburg

    (3)   Cannes   (4) Washington

60. Which section of the Representation of the People Act, 1951, prohibits displaying any election matter by means, inter alia, of television or similar apparatus, during the period of 48 hours before the hour fixed for conclusion of poll in a constituency ?

    (1)   Section 75   (2) Section 126

    (3)   Section 112   (4) Section 45

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61. Neelam, who is Deepak's daughter, says to Deepika, "your mother Rekha is the younger sister of my father, who is the third child of Ramlal". How is Ramlal related to Deepika ?

    (1) Uncle
    (2) Father
    (3) Grandfather
    (4) Father-in-law

62. Choose the odd one from the given series.

    1, 3, 10, 21, 64, 129, 256, 778

    (1) 10
    (2) 21
    (3) 129
    (4) 256

63. If MOBILITY is coded as 46293927 in a certain language code, then EXAMINATION will be coded in the same language code as

    (1) 45038401854
    (2) 56149512965
    (3) 57159413955
    (4) 67250623076

Directions (Questions 64–68) : *Read the following information carefully and answer the questions given below.*

There are six writers of literature A, B, C, D, E and F. Two belong to the 17th century, three to the 19th century and one to the 20th century. Four were recognized as great poets, three as great novelists and three as great dramatists. One contributed to Bengali, two to Hindi, two to Marathi and one to the Tamil literature. The 20th century writer wrote poetry only and contributed to Marathi literature and the other Marathi writer contributed to poetry, novel and drama. One Hindi writer and the only Tamil writer belonged to the 19th century. The former contributed to poetry and novel while the latter to novel and drama. The Bengali writer belonged to the 17th century and contributed to poetry only. A belonged to the 20th century, B wrote drama only, C contributed to Marathi literature, D was a Hindi poet and novelist and belonged to the 19th century. E also belonged to the 19th century, and F contributed to poetry only.

64. Writer B contributed to which language ?

    (1) Bengali
    (2) Hindi
    (3) Marathi
    (4) Tamil

65. Who was the Tamil writer among the following ?

    (1) A
    (2) D
    (3) E
    (4) C

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631 – L

66. Writer *A* contributed to which branch of literature ?

   (1) Poetry
   (2) Novel
   (3) Drama
   (4) All of these ✓

67. Who was the Bengali writer among the following ?

   (1) A
   (2) C
   (3) B
   (4) F ✓

68. Writer *C* contributed to which branch of literature ?

   (1) Poetry ✓
   (2) Drama
   (3) Novel
   (4) All of these

Directions (Questions 69-70) : *Each of these questions has a statement followed by two conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusions follows from the statement. Mark the answer as*

   (1) if conclusion I follows.
   (2) if conclusion II follows.
   (3) if either conclusion I or II follows.
   (4) if neither conclusion I nor II follows.

69. *Statement :* A good voice is a natural gift; but one has to keep practising to improve and excel well in the field of music.

   Conclusions:

   I. Natural gifts need nurturing and care.
   II. Even though your voice is not good, one can keep practising.

70. *Statement :* Domestic demand has been increasing faster than the production of indigenous crude oil.

   Conclusions:

   I. Crude oil must be imported.
   II. Domestic demand should be reduced.

71. 5 kg of rice at ₹ 6 per kg is mixed with 4 kg of rice to get a mixture costing ₹ 7 per kg. Find the per kg price of the costlier rice.
    (1) ₹ 8.50   (2) ₹ 8.25   (3) ₹ 9.50   (4) ₹ 9.25

72. The length and the breadth of a rectangle are changed by +20% and by –10% respectively. What is the percentage change in the area of the rectangle ?
    (1) 10%   (2) 12.5%   (3) 8%   (4) 15%

73. A manufacturer makes a profit of 15% by selling a colour TV for ₹ 6,900. If the cost of manufacturing increases by 30% and the price paid by the retailer is increased by 20%, find the percentage of profit made by the manufacturer.
    (1) 6.15%   (2) 7.25%   (3) 6.75%   (4) 8.50%

74. Ravi borrows a sum of ₹ 1,200 at the beginning of a year. After 4 months, an amount of ₹ 1,800 more is borrowed at a rate of interest double the previous one. At the end of the year, the sum of interest on both the loans is ₹ 216. What is the first rate of interest per annum ?
    (1) 9%   (2) 6%   (3) 8%   (4) 12%

75. A contractor undertakes to build a wall in 50 days. He employs 50 men for the same. However, after 25 days he finds that the work is only 40% complete. How many more men need to be employed to complete the work 10 days before time ?
    (1) 75   (2) 95   (3) 115   (4) 125

76. A man travels from his house to his office at 5 km/hr and reaches his office 20 minutes late. If his speed had been 7.5 km/hr, he would have reached his office 12 minutes early. Find the distance from his house to his office.
    (1) 6 km   (2) 7 km   (3) 8 km   (4) 9 km

77. Two pipes A and B can fill a tank in 15 minutes and 20 minutes respectively. Both the pipes are opened together but after 4 minutes, pipe A is turned off. What is the total time required to fill the tank ?
    (1) 10 min. 40 sec.   (2) 11 min. 45 sec.
    (3) 12 min. 30 sec.   (4) 14 min. 40 sec.

78. The contents in beakers A and B are 90 litres of milk and 90 litres of water respectively. Now 30 litres of milk is taken from A and put into beaker B. After thorough mixing, 12 litres of the mixture is taken from B and put into beaker A. What is the percentage of water in beaker A ?
    (1) 14.5%   (2) 12.5%   (3) 15.5%   (4) 17.5%

79. Saina was given some money by her father on her birthday. Saina spent all of it in five shops. In each shop, she spent one rupee more than half of what she had when she came in. How much did she get from her father ?
    (1) ₹ 30   (2) ₹ 120   (3) ₹ 46   (4) ₹ 62

80. A school has 378 girl students and 675 boy students. The school is divided into strictly boys or strictly girls sections and all sections in the school have the same number of students. Find the number of sections in the school.
    (1) 39   (2) 14   (3) 25   (4) 27

81. When a teacher takes his/her class for a field trip and on coming back discusses the trip with students, it is called
    (1) assessment for learning.
    (2) learning for assessment.
    (3) assessment of learning.
    (4) learning of assessment.

82. Which of the following is generally considered the most effective way to change behaviour ?
    (1) Regular awards.
    (2) Good advice
    (3) Physical punishment
    (4) None of these

83. Students are given homework primarily because
    (1) it helps in assessment of the success of the teaching process.
    (2) it helps to reduce mischievous activities of students.
    (3) enables a child to study at home also.
    (4) it saves teachers' work.

84. The main job of a teacher is to
    (1) focus on teaching only.
    (2) point out mistakes of students continuously.
    (3) help the students to learn for themselves.
    (4) None of these

85. Which of the following is/are a correct statement(s) ?
    (1) Learning capacity of all children is different.
    (2) Most children have similar nature.
    (3) Most children possess similar interest.
    (4) All of these

86. Teaching of students should be according to
    (1) their nature.   (2) their mental development.
    (3) their capability to learn.   (4) All of these

87. Which of the following is a feature of progressive education ?
    (1) Instruction based solely on prescribed text books.
    (2) Emphasis on scoring good marks in examinations.
    (3) Frequent tests and examinations.
    (4) Flexible time-table and seating arrangement.

88. Due to the utilization of various methods in teaching
    (1) teaching has become simple.   (2) teaching has become interesting.
    (3) students pay more attention.   (4) All of these

89. Which of the following fields is not covered by educational psychology ?
    (1) Philosophical basis of education.
    (2) Group dynamics.
    (3) Evaluation of teachers and researchers in education.
    (4) Process of adjustment.

90. Similarity or difference of a person from others in his performance is due to the effect of
    (1) his heredity.   (2) his environmental training.
    (3) Both (1) & (2)   (4) None of these

91. Psychological principles and theories can be applied in the field of
    (1) Management   (2) Business
    (3) Medical treatment   (4) All of these

92. Human personality is the result of
    (1) heredity only.
    (2) environment only.
    (3) upbringing and education.
    (4) interaction between heredity and environment.

93. Learners often display individual differences. Therefore, a teacher should
    (1) enforce strict discipline.
    (2) maintain uniform pace of learning.
    (3) provide variety of learning experiences.
    (4) have more tests.

94. In the context of education, socialization means
    (1) always following social norms.
    (2) adjusting and adapting to social environment.
    (3) respecting elders in society.
    (4) None of these

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631 – L

95. What is the natural language acquaintance in the teaching method ?

    (1) Writing, hearing, speaking, reading.

    (2) Hearing, speaking, reading, writing.

    (3) Speaking, hearing, reading, writing.

    (4) None of these

96. Being a teacher, what would you do when a good student scores less marks ?

    (1) Give him/her a psychological treatment.

    (2) Feel shameful in front of the class.

    (3) Inspire him/her to work hard.

    (4) Punish him/her severely.

97. When previous learning makes no difference at all to the learning in the new situation, it is called

    (1) negative transfer of learning.

    (2) positive transfer of learning.

    (3) zero transfer of learning.

    (4) absolute transfer of learning.

98. Who is mainly responsible for class room management ?

    (1) Students

    (2) Principal

    (3) Class-teacher

    (4) None of these

99. Teachers should study the errors of their students as they often indicate the

    (1) level of their knowledge.

    (2) need for differentiated curriculum.

    (3) pathways for ability grouping.

    (4) remedial strategies required.

100. A creative learner is one who is

    (1) highly intelligent.

    (2) good in drawing and painting.

    (3) good at lateral thinking and problem solving.

    (4) capable of scoring consistently good marks in tests.

101. The process of producing bitmapped images from a view of 3-D models in a 3-D scene is called
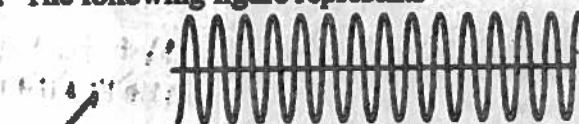
 (1) Rendering
 (2) Looping.
 (3) Cross-dissolving.
 (4) Imaging.

102. The diagram below represents .
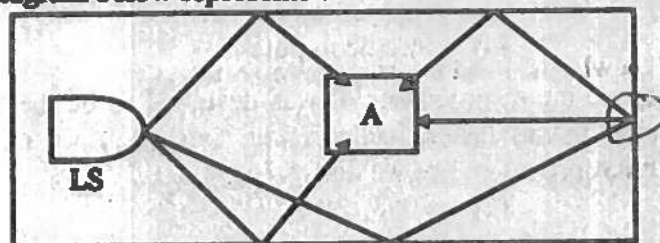
 (1) Resolution
 (2) Vibration
 (3) Reverberation
 (4) Frequency

103. The following figure represents

 (1) Pure sine wave.
 (2) Pulse code modulation.
 (3) Sampling.
 (4) Rarefaction.

104. The process of taking a snapshot of the waveform at regular intervals and representing it as a binary number is known as

 (1) Sampling.
 (2) Standard Assessment.
 (3) Sequential Formatting.
 (4) Sound Structure.

105. _____ is a technique where the same objects shown further away are shown proportionately smaller.

 (1) Dimension
 (2) Perspective
 (3) Compression
 (4) Localization

106. Which of the following is interactive ?

 (1) A radio broadcast.
 (2) A talk show on TV.
 (3) A newspaper.
 (4) A computer game.

107. The x.25 standard specifies a

 (1) Technique for start-stop data.
 (2) Technique for dial access.
 (3) DTE / DCE interface.
 (4) Data bit rate.

108. Frames from one LAN can be transmitted to another LAN via a device called

 (1) Router.
 (2) Bridge.
 (3) Repeater.
 (4) Modem.

109. With an IP address of 100, you currently have 80 subnets. What subnet mask should you use to maximize the number of available hosts ?

 (1) 192
 (2) 224
 (3) 248
 (4) 252

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110. The _____ houses the switches in token ring.
    (1) Transceiver
    (2) Nine-pin connector
    (3) MAU
    (4) NIC

111. The term _____ is used for the larger, more powerful computers other than supercomputers. It supports a large database, has elaborate I/O hardware, and is used in a central data processing facility.
    (1) minicomputer
    (2) supercomputer
    (3) mainframe
    (4) microcomputer

112. This was the first general purpose micro-processor. It was designed to be the CPU of a general purpose micro-computer. It was faster, had a richer instruction set and a larger addressing capability. Which microprocessor are we discussing?
    (1) 4004
    (2) 8008
    (3) 8080
    (4) All of these

113. In OSI network architecture, routing is performed by the
    (1) Network layer.
    (2) Data link layer.
    (3) Transport layer.
    (4) Session layer.

114. What will be the value of C, in C[x++] + [++x] + [++x] + [x] if x=10 ?
    (1) 48
    (2) 45
    (3) 46
    (4) 49

115. Determine the size of PROM required for implementing the 16-to-1 multiplexer.
    (1) 1M x 1
    (2) 2M x 1
    (3) 8M x 1
    (4) 32M x 1

116. Determine the number of programmable inter-connections in the following programmable logic device- PAL device with eight input variables, 16 AND gates and four OR gates.
    (1) 384
    (2) 512
    (3) 256
    (4) 128

117. In object-oriented programming, by wrapping up characteristics and behaviour into one unit, we achieve
    (1) data abstraction.
    (2) data encapsulation.
    (3) data hiding.
    (4) All of these

118. The term _____ refers to the use of electronics and software within a product, as opposed to a general-purpose computer, such as a laptop or desktop system.
    (1) complex system
    (2) simple system
    (3) Fuzzy logic
    (4) embedded system

119. The _____ is a popular high-bandwidth, processor independent bus that can function as a mezzanine or peripheral bus.
    (1) Peripheral component interconnect (PCI)
    (2) Peripheral component disconnect (PCD)
    (3) Input output connect
    (4) Array connect

120. Sequential, direct, random and associative are access methods and key characteristics of computer _____ system.
    (1) stack
    (2) counter
    (3) memory
    (4) core

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121. In a monolithic kernel, operating system runs in
    (1) user mode.
    (2) supervisor mode.
    (3) user/supervisor mode.
    (4) None of these

122. The Hamming (7, 4) code for 0000 using even parity is
    (1) 0000000
    (2) 1111111
    (3) 2222222
    (4) 12121212

123. One scheme for communication between user-thread library and the kernel is known as
    (1) lightweight process.
    (2) upcall handler.
    (3) scheduler activation.
    (4) cleanup handler.

124. A classic software-based solution to the critical-section problem is known as
    (1) Peterson's solution.
    (2) process synchronization.
    (3) coordination.
    (4) race condition.

125. _____ is a sequence of memory read-write operations that are atomic.
    (1) Critical section object
    (2) Adaptive mutex
    (3) Turnstile
    (4) Memory transaction

126. The reduced expression for the following expression using a Karnaugh Map
    $F(W,X,Y,Z)=\Sigma(0,4,8,12)$ is :
    (1) YZ
    (2) Y'Z'
    (3) Y+Z
    (4) Y'+Z'

127. If a process is runnable but is temporarily stopped to let another process run, in which state is the process said to be ?
    (1) Running
    (2) Ready
    (3) Interrupted
    (4) Blocked

128. To override a method in Java, we need to define a method in a sub-class with the
    (1) same name, same number of arguments having the same data types as a method in the superclass.
    (2) different name, same number of arguments having the same data types as a method in the superclass.
    (3) same name but different number of arguments as a method in the superclass.
    (4) same name, same number of arguments but different data types as a method in the superclass.

129. In order to add a new column to an existing table in SQL, we can use the command
    (1) MODIFY TABLE
    (2) EDIT TABLE
    (3) ALTER TABLE
    (4) ALTER COLUMNS

130. Which of the following search algorithm requires a sorted array ?
    (1) Linear search
    (2) Hash search
   (3) Binary search
    (4) All of these

131. When the object making the sound is moving towards you, the frequency goes up due to the waves getting pushed more tightly together. The opposite happens when the object moves away from you and the pitch goes down. This is called
    (1) Band width.
    (2) Doppler effect.
    (3) Sound refraction.
    (4) Vibrations.

132. Even when the screen is completely dark while the film is in motion, commercial motion pictures use
    (1) 32 frames per second or 102 screen illuminations per second.
    (2) 72 frames per second or 234 screen illuminations per second.
    (3) 8 frames per second or 32 screen illuminations per second.
    (4) 24 frames per second or 72 screen illuminations per second.

133. The Internet Control Message Protocol (ICMP)
    (1) allows gateways to send error control messages to other gateways or hosts.
    (2) provides communication between the Internet Protocol Software on one machine and the Internet Protocol Software on another.
    (3) only reports error conditions to the original source, the source must relate errors to individual application programs and take action to correct the problem.
    (4) All of these

134. _____ refers to those attributes of a system visible to a programmer or, put another way, those attributes that have a direct impact on the logical execution of a program.
    (1) Computer organization
    (2) Computer architecture
    (3) Microprocessor
    (4) Bus

135. How many characters does an escape sequence (\On,\Hn,\n,\f) in C++ consume ?
    (1) 1
    (2) 3
    (3) 2
    (4) None of these

136. The closeness of the recorded version to the original sound is called
    (1) Fidelity.
    (2) Digitization.
    (3) Sampling.
    (4) Nyquist Theorem.

137. Which layers of the OSI model are host-to-host layers ?
    (1) Transport, Session, Presentation, Application.
    (2) Network, Transport, Session , Presentation.
    (3) Datalink, Network, Transport, Session.
    (4) Physical, Datalink, Network, Transport.

138. The following diagram depicts a _____ cell.
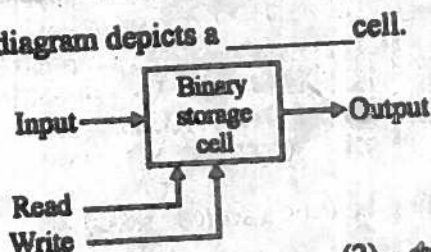
    (1) storage
   (2) mobile
    (3) memory
    (4) register

139. The diagram below represents
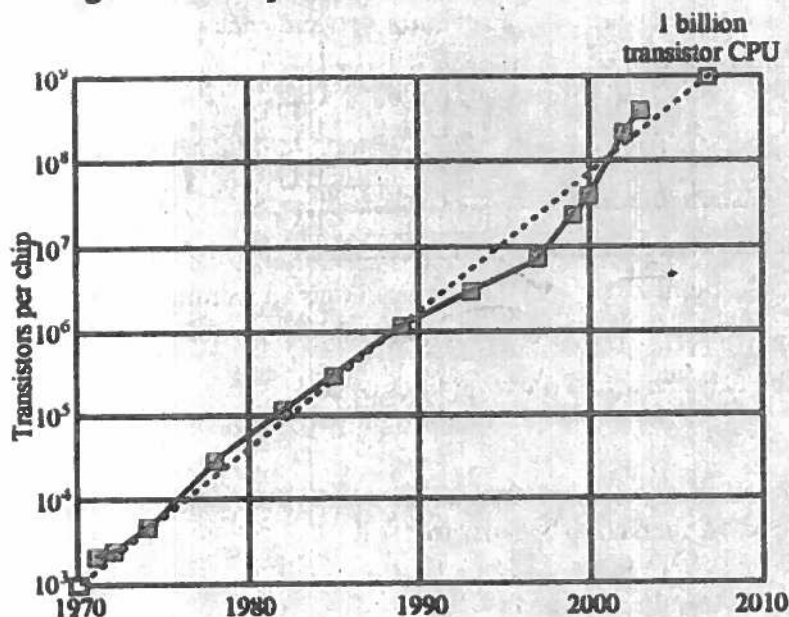
(1) Moore' law.   (2) Newton Raphson method.

(3) Boyle's law.   (4) Gregor law.

140. ____ is the first Intel x86 microprocessor with a dual core, referring to the implementation of two processors on a single chip.

(1) Core   (2) Core 2 duo

(3) Dual core   (4) Centrino

141. ____ chips are high speed processors that are known for their small die size and low power requirements. They are widely used in PDAs and other hand held devices, including games and phones as well as a large variety of consumer products. It is probably the most widely used embedded processor architecture and indeed the most widely used processor architecture of any kind in the world.

(1) HAND   (2) LEG

(3) ARM   (4) SUN

142. Which of the following is not true for overloaded functions in C++ ?

(1) Overloaded functions should have different argument lists.

(2) Overloaded functions having the same argument lists should have a different return type.

(3) Functions cannot be overloaded on the basis of one being static and the other non-static.

(4) None of these

143. A ____ is a communication pathway connecting two or more devices. Another of its' key characteristic is that it is a shared transmission medium. A signal transmitted by any one device is available for reception by all other devices attached to it.

(1) Train   (2) Bus

(3) Tram   (4) Aeroplane

144. The following diagram shows a
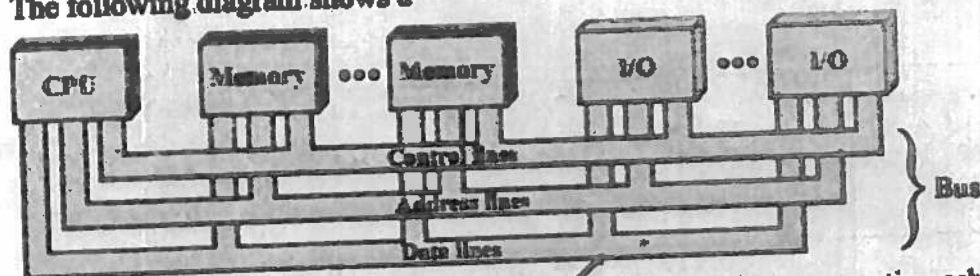
(1) Bus interconnection scheme.
(2) Memory interconnection scheme.
(3) I/O.
(4) Throughput.

145. Which constructor will be called by the following lines of code ?
    (i) Student S1;
    (ii) Student S2 = S1;
    (1) First copy constructor, then default constructor.
    (2) First default constructor, then copy constructor.
    (3) Default constructors for both lines of code.
    (4) Copy constructors for both lines of code.

146. _____ memory is intended to give memory speed approaching that of the fastest memories available, and at the same time provide a large memory size at the price of less expensive types of semiconductor memories.
    (1) Register
    (2) Counter
    (3) Flip flop
    (4) Cache

147. Consider the following EMP table and answer the question below:

EMP_NO	SALARY	GRADE
E001	1000	E1
E002	2000	E4
E003	1500	E2
E004	4000	E4

Which of the following select statement should be executed if we need to display the average salary of employees who belong to grade "E4" ?
    (1) select avg(salary) from EMP whose grade="E4";
    (2) select avg(salary) from EMP having grade="E4";
    (3) select avg(salary) from EMP group by grade where grade="E4";
   (4) select avg(salary) from EMP group by grade having grade="E4";

148. The major functions or requirements for an I/O module fall into which of the following categories ?
    (1) Control and timing.
    (2) Processor communication.
    (3) Data buffering.
    (4) All of these.

149. Consider an arbitrary number system with the independent digits as 0, 1 and X. What is the radix of this number system ?
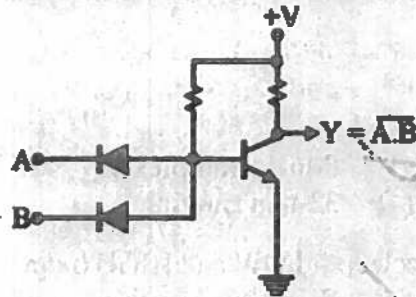   (1) 1
    (2) 2
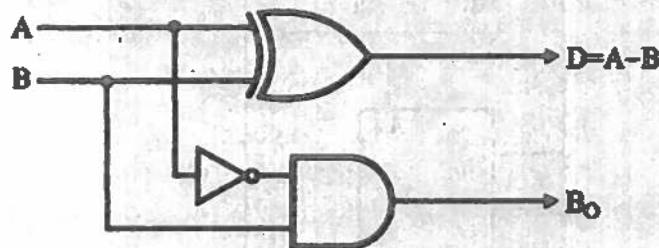   (3) 3
    (4) 4

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150. The following diagram shows a

$$Y = \overline{A \oplus B}$$
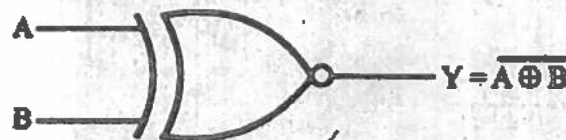
(1) Exclusive-NOR gate   (2) NAND gate

(3) AND gate   (4) OR gate

151. The following diagram depicts _____ logic.

$$Y = \overline{AB}$$

(1) diode   (2) transistor

(3) diode-transistor   (4) resistor

152. The diagram below shows a

$$D = A - B$$

$$B_O$$

(1) Half adder   (2) Half subtractor

(3) Full adder   (4) Full subtractor

153. Which of the following statements is true ?

(1) The JAVA compiler produces a code for JVM, which is executed by a JAVA interpreter.

(2) The JAVA compiler produces a code directly for JAVA interpreter.

(3) The JAVA compiler directly executes code in JVM.

(4) The JAVA compiler helps in directly executing a code on different operating systems.

154. A/an _____ , also called a data selector, is a combinational circuit with more than one input line, one output line and more than one selection line.

(1) de-multiplexer   (2) multiplexer or MUX

(3) operational amplifier   (4) integrated circuit

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155. Determine the function performed by the combinational circuit of the given figure.
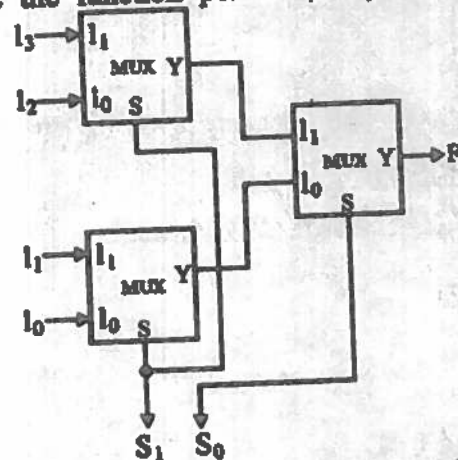
(1) 4-to-1 multiplexer

(3) 16-to-1 multiplexer

(2) 8-to-1 multiplexer

(4) 32-to-1 multiplexer

156. A _____ multivibrator circuit is one in which both LOW and HIGH output states are stable.

(1) Monostable

(3) Multistable

(2) Bistable

(4) Tristable

157. Refer to the monostable multivibrator circuit in the figure below. The trigger terminal (pin 2 of the IC) is driven by a symmetrical pulsed waveform of 10 kHz. Determine the duty cycle of the output waveform.
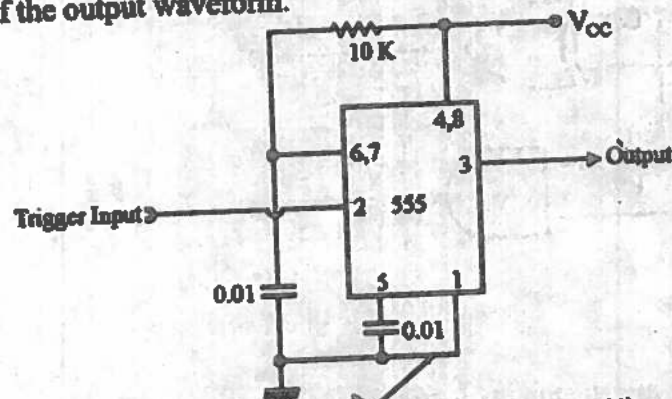
(1) 0.56

(2) 0.55

(3) 0.57

(4) 0.58

158. In a Schmitt trigger inverter circuit, the two trip points are observed to occur at 1.8 and 2.8 V. At what input voltage levels will this device make (a) HIGH-to-LOW transition and (b) LOW-to-HIGH transition ?

(1) 2.8 V & 1.8 V

(3) 4 V & 2.2 V

(2) 3 V & 2 V

(4) 2.6 V & 1.5 V

159. A web page contains many small images. We can speed up the performance of the browser by

(1) having multiple processes executed simultaneously.

(2) having multiple threads.

(3) increasing the speed of the transmission line.

(4) increasing the main memory of the system.

160. The percentage resolution of an eight bit D/A converter is

(1) 0.39%

(2) 0.38%

(3) 0.50%

(4) 0.51%

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161. From the following Java code determine the attributes of the class student:

```
class student{
        string name;
        int marks;
};
public static void main(){
        student S1=new student();
        student S2=new student();
}
```

   (1)   Only name.
   (2)   Both name and marks.
   (3)   Only S1.
   (4)   Both S1 and S2.

162. If a user is not able to see the image on the web page, the text that is displayed in place of the image, is specified by which of the following attributes in HTML ?
   (1)   ALTERNATE
   (2)   ALTLINK
   (3)   ALT_TEXT
   (4)   ALT

163. An array is
   (1)   probably the most widely used data structure.
   (2)   a homogeneous structure.
   (3)   a random access structure.
   (4)   All of these

164. _____ are used to access data on secondary, sequential-access stores, such as disks and tapes.
   (1)   Sequences
   (2)   Arrays
   (3)   Records
   (4)   Registers

165. Sorting is
   (1)   a process of re-arranging a given set of objects in a specific order.
   (2)   to facilitate the later search for members of the sorted set.
   (3)   is a relevant and essential activity, particularly in data processing.
   (4)   All of these

166. The figure below represents a _____ sort.

   (1)   Bubble
   (2)   Shake
   (3)   Tree
   (4)   Insertion
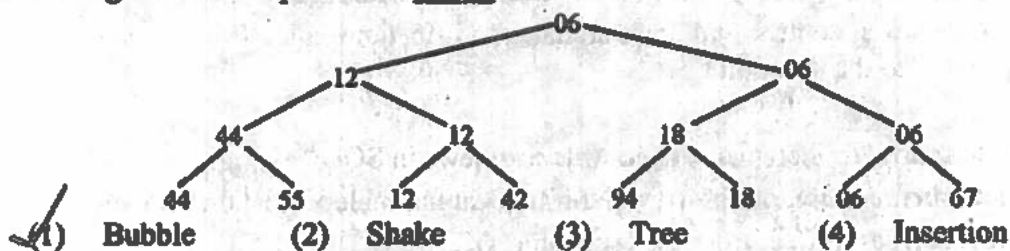
167. The figure below represents a

   (1)   Hilbert curve of order 3.
   (2)   Hilbert curve of order 2.
   (3)   Hilbert curve of order 1.
   (4)   Hilbert curve of order 4.

168. Internal linking with respect to HTML means

    (1)   linking one part of the document on one computer, to another part of the document on some other computer with the same file name.

    (2)   linking one part of the document on one computer, to another part of the document on some other computer in the same LAN.

    (3)   linking one part of the document to another part of the same document.

    (4)   linking one part of the document to another document on the same computer.

169. The figure below represents a
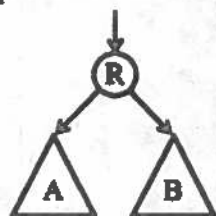
    (1)   Binary tree   (2)   Recursive tree

    (3)   Insert sort   (4)   Unitary tree

170. The command used to see the fields of the table alongwith their datatypes in SQL is

    (1)   Select fields from dual where table="MANAGER";

    (2)   Select field_names, datatype from dual where table_name="MANAGER";

    (3)   Desc MANAGER;

    (4)   Select description from dual where table_name="MANAGER";

171. Which of the following statements is NOT true for Rollback statements in SQL ?

    (1)   All savepoints marked after the savepoint to which you rollbacked, are erased.

    (2)   It does not free any resources held by the transaction.

    (3)   The savepoint to which you rollback is not erased.

    (4)   The Rollback statement will erase all data modifications made from the start of the transaction to the savepoint.

172. Which of the following statements is not true for views in SQL ?

    (1)   Select statement used in the view definition cannot include ORDER BY clause.

    (2)   A view derives its data from the base table(s).

    (3)   A view is updatable if it has been defined from a single relation.

    (4)   A view contains a copy of the data.

173. An important quantitative measure of the complexity of a binary tree is its _____. It also provides a measure of the average depth of all nodes in the tree.

    (1)   average path length   (2)   median path length

    (3)   mode path length   (4)   simple deviation path length

174. The figure below depicts the hierarchy of _____ class.
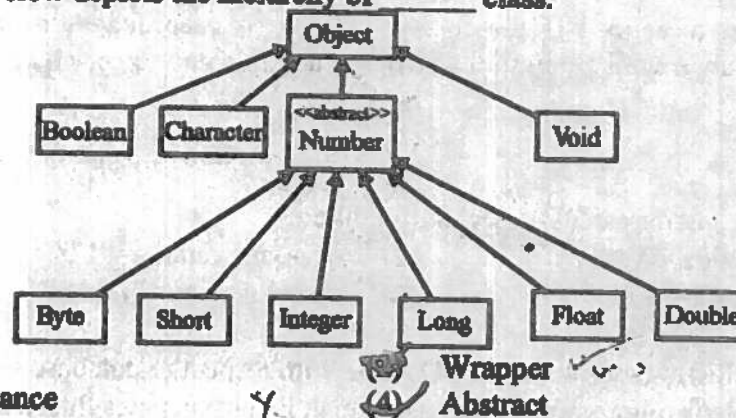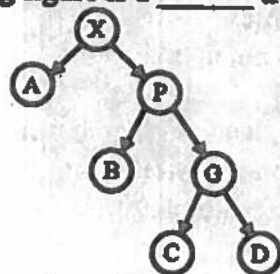

(1) Heap
(3) Inheritance
Wrapper
(4) Abstract

175. The following figure is a _____ tree after zig-zig rotations.
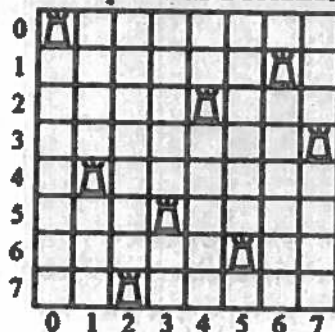

(1) Heap
(3) Splay
(2) Bubble
(4) Binary

176. The diagram below represents a solution to the

(1) Knights Tour.
(3) Kings Problem.
(2) Eight Queens Problem.
(4) Rooks Problem.

177. The function of the XML parser is to
(1) convert XML content into HTML content.
(2) convert XML content into DHTML content.
(3) convert XML content into XML DOM content.
(4) convert XML content into binary code.

178. The following data refer to a hard disk: number of tracks per side = 600; number of sides = 2; number of bytes per sector = 512; storage capacity in bytes = 21 504 000. Determine the number of sectors per track for this hard disk.
(1) 35
(3) 45
(2) 40
(4) 50

179. A transient of 100 ms is to be captured on a digital storage oscilloscope on full screen in the horizontal direction. If the transient is to be recorded at a sampling rate of 100 kS/s, what should the minimum size of the acquisition memory be?
    (1) 5K
    (2) 10K
    (3) 15K
    (4) 20K

180. Prolog in XML contains an XML declaration like
    (1) < ?xml version="1.0">
    (2) <!—xml version="1.0">
    (3) </xml version="1.0">
    (4) <\xml version="1.0">

181. Which of the following statements is NOT true with respect to database normalization?
    (1) A 4NF table is more immune against logical inconsistencies than a 3NF table.
    (2) A 3NF table will have fewer anomalies than a 2NF table.
    (3) A 3NF table is more vulnerable than a 2NF table.
    (4) A database is said to be in 3NF if all its tables are in 3NF.

182. If a table is in BCNF and has no multi-valued dependencies, then it is said to be in
    (1) Third Normal Form.
    (2) Second Normal Form.
    (3) Fourth Normal Form.
    (4) Fifth Normal Form.

183. Representation of data structure in memory is known as
    (1) recursive.
    (2) abstract data type.
    (3) storage structure.
    (4) file structure.

184. The largest element of an array index is called its
    (1) lower bound.
    (2) range.
    (3) upper bound.
    (4) All of these

185. What is coalescing?
    (1) It is a second strategy for allocating kernel memory.
    (2) The buddy system allocates memory from a fixed size segment consisting of physically contiguous pages.
    (3) Kernel memory is often allocated from a free-memory pool different from the list used to satisfy ordinary user-mode processes.
    (4) An advantage of the buddy system is how quickly adjacent buddies can be combined to form larger segments using this technique.

186. The positioning time or random access time, consists of two parts: the time necessary to move the disk arm to the desired cylinder, called
    (1) seek time
    (2) rotational latency
    (3) flash drives
    (4) transfer rate

187. In an RDBMS relationships between tables are created by using
    (1) Alternate keys.
    (2) Foreign keys.
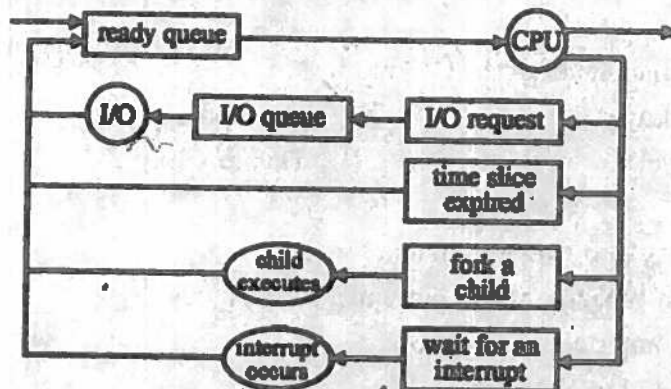   (3) Candidate keys.
    (4) Composite keys.

188. Real-Time operating system always runs on
    (1) Linux.   (2) UNIX.
    (3) Embedded system.   (4) Apple's Mac OS.
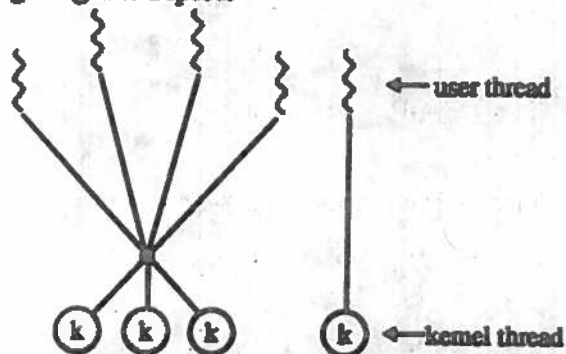
189. A program is a/an _____ entity.
    (1) active   (2) passive
    (3) dormant   (4) hyperactive

190. The diagram given below represents

    (1) process creation.   (2) process state.
    (3) Queueing diagram.   (4) communication model.

191. The following diagram depicts

    (1) two-level model   (2) many-to-one model
    (3) one-to-one model   (4) many-to-many model

192. This begins at the root and follows a path down to the specified file, giving the directory names on the path. This is known as
    (1) absolute path name.   (2) relative path name.
    (3) definite path name.   (4) indefinite path name.

193. Each process is contained in a single section of memory that is contiguous to the section containing the next process is called
    (1) contiguous memory protection.   (2) contiguous memory allocation.
    (3) contiguous memory relocation.   (4) contiguous memory utilization.

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Both the first-fit and best-fit strategies for memory allocation suffer from

(1) external fragmentation.
(2) internal fragmentation.
(3) 50-percent rule.
(4) segmentation.

95. The simplest, but most expensive, approach to introductory redundancy is duplicate to every disk. This technique is called

(1) swap space.
(2) mirroring.
(3) page slots.
(4) None of these

196. Bridge works in which layer of the OSI model ?

(1) Application Layer
(2) Transport Layer
(3) Network Layer
(4) Datalink Layer

197. What is the meaning of bandwidth in a network ?

(1) Transmission capacity of a communication channel.
(2) Connected computers in a network.
(3) Class of IP used in Network.
(4) Interconnected by communication channels.

198. Which one of the following transmission systems provides the highest data rate to an individual device ?

(1) Computer bus
(2) Telephone bus
(3) Voice and mode
(4) Lease lines

199. The file size of a 640 by 480 picture of 256 colours in a 8-bit resolution is

(1) 300 KB
(2) 900 KB
(3) 128 KB
(4) 1024 KB

200. The diagram below depicts :
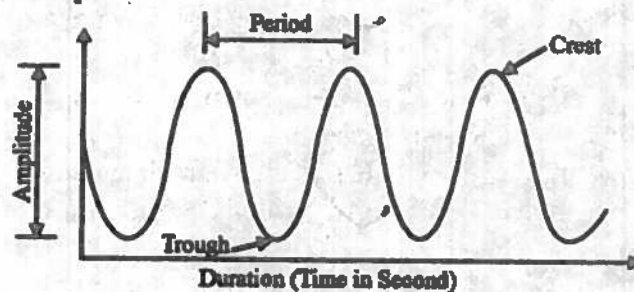
(1) Sound in wave form.
(2) Wind frequency.
(3) Line of sight.
(4) Compressions on a map.

1. Please do not open this booklet until you are told to do so.

2. Fill up the necessary information in the space provided on the cover of the Question Booklet and the Answer Sheet before commencement of the test.

3. The duration of the test is 3 hours. There are 200 questions.

4. Please check for the completeness of the Question Booklet immediately after opening.

5. Each question has four answer options marked (1), (2), (3) and (4).

6. Answers are to be marked on the Answer Sheet, which is provided separately.

7. Choose the most appropriate option and darken the oval completely, corresponding to (1), (2), (3) or (4) against the relevant question number.

8. Use only blue ball point pen to darken the oval for answering.

9. Please do not darken more than one oval against any question, as scanner will read such marking as wrong answer.

10. Once an oval is darkened as answer to the question, it cannot be changed.

11. All questions carry equal marks. There is no negative marking.

12. Rough work, if any, is to be done on the question booklet only. No separate sheet will be provided/used for rough work.

13. Calculator, Mobile etc., are not permitted inside the examination hall.

14. Candidates seeking, receiving and/or giving assistance during the test will be disqualified.

15. Appropriate civil/criminal proceedings will be instituted against the candidate taking or attempting to take this booklet or part of it outside the examination hall during the test, besides cancellation of his/her candidature.

16. The right to exclude any question(s) from final evaluation rests with the testing authority.

17. Candidate may take the Question Booklet after the completion of the test.

SEAL