DIPLOMA - COMMON ENTRANCE TEST-2017

CS	COURSE	DAY : SUNDAY DATE : 02-07-2017
	COMPUTER SCIENCE	TIME : 10.00 a.m. to 1.00 p.m.

MAXIMUM MARKS	TOTAL DURATION	MAXIMUM TIME FOR ANSWERING
180	200 MINUTES	180 MINUTES

MENTION YOUR DIPLOMA CET NUMBER					QUESTION BOOKLET DETAILS	
					VERSION CODE	SERIAL NUMBER
					B - 1	208938

DOs :

1. Check whether the Diploma CET No. has been entered and shaded in the respective circles on the OMR answer sheet.
2. This Question Booklet is issued to you by the invigilator after the **2nd Bell i.e., after 09.50 a.m.**
3. The Serial Number of this question booklet should be entered on the OMR answer sheet and the respective circles should also be shaded completely.
4. The Version Code of this question booklet should be entered on the OMR answer sheet and the respective circles should also be shaded completely.
5. Compulsorily sign at the bottom portion of the OMR answer sheet in the space provided.

DON'Ts :

1. **THE TIMING AND MARKS PRINTED ON THE OMR ANSWER SHEET SHOULD NOT BE DAMAGED / MUTILATED / SPOILED.**
2. The **3rd Bell rings at 10.00 a.m., till then;**
   - Do not remove the paper seal / polythene bag of this question booklet.
   - Do not look inside this question booklet.
   - Do not start answering on the OMR answer sheet.

CONFIDENTIAL

IMPORTANT INSTRUCTIONS TO CANDIDATES

1. This question booklet contains 180 (items) questions and each question will have one statement and four answers. (Four different options / responses.)
2. After the **3rd Bell is rung at 10.00 a.m.,** remove the paper seal / polythene bag of this question booklet and check that this booklet does not have any unprinted or torn or missing pages or items etc., if so, get it replaced by a complete test booklet. Read each item and start answering on the OMR answer sheet.
3. During the subsequent 180 minutes:
   - Read each question (item) carefully.
   - Choose one correct answer from out of the four available responses (options / choices) given under each question / item. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **only one response** for each item.
   - **Completely darken / shade the relevant circle with a BLUE OR BLACK INK BALL POINT PEN against the question number on the OMR answer sheet.**

Correct Method of shading the circle on the OMR answer sheet is as shown below :

4. Use the space provided on each page of the question booklet for Rough Work. Do not use the OMR answer sheet for the same.
5. After the **last Bell is rung at 1.00 p.m.,** stop marking on the OMR answer sheet and affix your **left hand thumb impression** on the OMR answer sheet as per the instructions.
6. Handover the **OMR ANSWER SHEET** to the room invigilator as it is.
7. After separating the top sheet (KEA copy), the invigilator will return the bottom sheet replica (Candidate's copy) to you to carry home for self-evaluation.
8. Preserve the replica of the OMR answer sheet for a minimum period of **ONE year.**

PART – A

APPLIED SCIENCE

1. The equation of motion of a body for distance travelled 'S_n' in the 'n^{th}' second is given by

(A) $S_n = u + \frac{a}{2}(2n-1)$ (B) $S_n = u - \frac{a}{2}(2n-1)$

(C) $S_n = u + \frac{a}{2}(2n+1)$ (D) $S_n = u - \frac{a}{2}(2n+1)$

2. A bullet of mass 0.01 kg is fired with a velocity of 960 ms^{-1} from a rifle of mass 3 kg. the velocity of recoil of rifle is

(A) $-320\ ms^{-1}$ (B) $-0.32\ ms^{-1}$

(C) $-3.2\ ms^{-1}$ (D) $-32\ ms^{-1}$

3. One of the following is not a scalar quantity :

(A) Mass (B) Density

(C) Force (D) Speed

4. If a body fixed about a point rotates in clockwise direction, the moment of force is measured as

(A) Positive (B) Negative

(C) Zero (D) Equal

5. The resultant magnitude of two forces P and Q acting in same line and in same direction is

(A) P – Q (B) P + Q

(C) Q – P (D) $\frac{P}{Q}$

Space For Rough Work

6. The resultant magnitude of two forces 6 N and 8 N acting at right angles to each other is

(A) 100 N (B) 10 N

(C) 48 N (D) 14 N

7. The value of resultant magnitude of two forces acting at a point is maximum, when the angle between the two forces is

(A) 0° (B) 90°

(C) 180° (D) 45°

8. Rise of liquid in a capillary tube is due to

(A) Energy (B) Viscosity

(C) Surface tension (D) Pressure

9. The ratio of volume stress to volume strain is called

(A) Bulk modulus (B) Young's modulus

(C) Rigidity modulus (D) Poisson's ratio

10. The reciprocal of bulk modulus of elasticity is called

(A) Compressibility (B) Rigidity

(C) Plasticity (D) Modulus of elasticity

11. The force of cohesion is maximum in

(A) Solids (B) Gases

(C) Liquids (D) Plasma

Space For Rough Work

12. The value of surface tension is 80 dyne/cm. What will be its value in Nm^{-1} ?

(A) $8\times10^{2}\ Nm^{-1}$ (B) $80\ Nm^{-1}$

(C) $8\times10^{-2}\ Nm^{-1}$ (D) $8\times10^{3}\ Nm^{-1}$

13. Pressure at the bottom of a container having base area of $10\ m^2$ filled with water to a height of 10 m is

(A) 9.8×10^{4} Pa (B) 980×10^{4} Pa

(C) 9.8×10^{-4} Pa (D) 980×10^{-4} Pa

14. 100 °C when expressed in absolute scale is

(A) 100 K (B) 0 K

(C) 273 K (D) 373 K

15. Gas law which gives the relation between pressure and volume changes is

(A) Boyle's law (B) Charles' law

(C) Gay-Lussac's law (D) Hooke's law

16. Amount of heat required to raise the temperature of one gram of water through 1 °C is

(A) Heat capacity (B) Conductivity

(C) Calorie (D) Joule

17. An example of longitudinal wave is

(A) Sound waves (B) Waves on the surface of water

(C) Light waves (D) Electromagnetic waves

Space For Rough Work

18. The relation between velocity of sound v, and absolute temperature T is

(A) $v \propto T$ (B) $v \propto \frac{1}{T}$

(C) $v \propto \sqrt{T}$ (D) $v \propto T^2$

19. The distance between a node and the next antinode in a stationary wave is equal to

(A) one wavelength (B) half wavelength

(C) twice wavelength (D) one fourth wavelength

20. Damage caused by marching military columns to the suspension bridge is due to

(A) Echo (B) Resonance

(C) Beats (D) Interference

21. During forced vibrations, if the forced frequency is F_1 and natural frequency is F_2, the body resonates if

(A) $F_1 > F_2$ (B) $F_2 > F_1$

(C) $F_1 = 2.5\, F_2$ (D) $F_1 = F_2$

22. The fundamental frequency of transverse vibrations of the stretched string is inversely proportional to

(A) tension (B) length of string

(C) square root of tension (D) square root of length of string

23. Minimum length of a hall to produce an echo is

(A) 50 m (B) 34 m

(C) 25 m (D) 17 m

Space For Rough Work

24. The property of light that Huygen's wave theory could explain is

(A) Polarisation (B) Photoelectric effect

(C) Interference (D) Compton effect

25. The spectrum of black body radiation is successfully explained by

(A) Newton's corpuscular theory of light

(B) Huygen's wave theory of light

(C) Maxwell's electromagnetic theory of light

(D) Planck's quantum theory of light

26. For constructive interference of light, the path difference should be

(A) $\frac{2n\lambda}{2}$ (B) $(2n+1)\frac{\lambda}{2}$

(C) $(2n+1)\frac{\lambda}{3}$ (D) $(2n+1)\frac{\lambda}{4}$

27. Two very close objects are just resolved if the central maximum of one object is on

(A) central maximum of another

(B) first minimum of another

(C) beyond second minimum of another

(D) between central maximum and first minimum of another

28. The light is incident at polarising angle θ_p and the angle of refraction is r, then

(A) $\theta_p + r = 0^\circ$ (B) $\theta_p + r = 90^\circ$

(C) $\theta_p + r = 180^\circ$ (D) $\theta_p + r = 360^\circ$

Space For Rough Work

29. Minimum energy required to remove an electron from the metal surface is called

(A) Kinetic energy (B) Potential energy

(C) Work function (D) Energy function

30. When the size of the scattering particle is small, the intensity of scattered light is inversely proportional to

(A) fourth power of wavelength (B) square of wavelength

(C) square root of wavelength (D) cube of wavelength

31. Time for which an atom stays in metastable state is of the order of

(A) Seconds (B) Milli-seconds

(C) Micro-seconds (D) Nano-seconds

32. If an element emits β-ray then its atomic number

(A) increases by one (B) decreases by one

(C) remains same (D) decreases by two

33. If the concentration of H^+ ions is more than 10^{-7} gm ion per litre, the solution is

(A) Base (B) Acid

(C) Neutral (D) Both Acid and Base

34. A galvanic cell is one in which

(A) chemical energy produce electric energy

(B) electric energy produce chemical energy

(C) chemical energy will not produce electric energy

(D) electric energy will not produce chemical energy

Space For Rough Work

35. The S.I. unit of Coefficient of Viscosity is

(A) Poise (B) NSm^{-2}

(C) $NS^{-1}m^2$ (D) $NS^{-1}m^{-2}$

36. The prefix used for 10^{19} is

(A) Mega (B) Tera

(C) Giga (D) Heeta

37. The physical quantity which has the dimensional formula $[ML^0T^{-2}]$ is

(A) Force (B) Surface tension

(C) Viscosity (D) Work

38. The least count of slide callipers is given by

(A) 1 MSD + 1 VSD (B) 1 MSD × 1 VSD

(C) 1 MSD – 1 VSD (D) $\frac{1\text{ MSD}}{1\text{ VSD}}$

39. The product of force and time is

(A) Momentum (B) Moment

(C) Impulse (D) Acceleration

40. The change in position of a particle in a particular direction is referred to as

(A) Speed (B) Displacement

(C) Velocity (D) Acceleration

Space For Rough Work

PART – B

APPLIED MATHEMATICS

41. The sine of the angle between the vectors $(2i - 2j + k)$ and $2i + j + 2k$ is

(A) $\frac{\sqrt{65}}{3}$ (B) $\frac{\sqrt{65}}{\sqrt{3}}$

(C) $\frac{\sqrt{65}}{9}$ (D) $\sqrt{65}$

42. If $x \sin^2 45 = \frac{\tan^2 45 + \cot^2 30}{\sin^2 45 + \cos^2 45}$ then the value of x is

(A) 4 (B) 2

(C) 6 (D) 8

43. The value of $\frac{4}{3}\sec^2\frac{\pi}{3} - \operatorname{cosec}^2\frac{\pi}{6} + \frac{3}{4}\tan^2\frac{\pi}{4} - 2\sin^2\frac{\pi}{3}$ is

(A) $-\frac{11}{12}$ (B) $\frac{53}{12}$

(C) $\frac{7}{12}$ (D) $-\frac{7}{12}$

44. The value of

$$\frac{\sin(90-\theta)}{\cos(360-\theta)} + \frac{\sec\left(\frac{3\pi}{2}+\theta\right)}{\operatorname{cosec}(\pi+\theta)} + \frac{\tan(180-\theta)}{\tan(-\theta)} \text{ is}$$

(A) 1 (B) –1

(C) 3 (D) 2

45. The value of cosec 43 cot 43 cot 47 cos 47

(A) 1 (B) 0

(C) –1 (D) 2

Space For Rough Work

46. The value of $\frac{\tan 69^\circ + \tan 66^\circ}{1 - \tan 69^\circ \tan 66^\circ}$

(A) 1 (B) -1

(C) 0 (D) ∞

47. If $\tan \frac{A}{2} = x$ then $\sin A + \tan A$ is

(A) $\frac{4x}{1-x^2}$ (B) $\frac{4x}{1+x^2}$

(C) $\frac{4x}{1+x^4}$ (D) $\frac{4x}{1-x^4}$

48. The value of $\sin 70^\circ - \sin 50^\circ - \sin 10^\circ$ is

(A) 1 (B) 0

(C) -1 (D) $\frac{1}{2}$

49. $\sin^{-1} x$ is also equal to

(A) $\text{cosec}^{-1}\left(\frac{1}{x}\right)$ (B) $\text{cosec}\, x$

(C) $\text{cosec}^{-1} x$ (D) $\frac{1}{\sin x}$

50. Centroid divides the median in the ratio

(A) 2 : 1 (B) 1 : 2

(C) 1 : 1 (D) 1 : 4

51. The co-ordinates of a point which divides the line join of the points (a + b, a − b) and (a − b, a + b) in the ratio 2 : 3 is

(A) $\frac{5a+5b}{5}, \frac{5a-5b}{5}$ (B) $\frac{a+b}{5}, \frac{a-b}{5}$

(C) $\frac{5a+b}{5}, \frac{5a-b}{5}$ (D) $\frac{5a-b}{5}, \frac{a+5b}{5}$

Space For Rough Work

52. The equation of straight line whose intercepts are 3 and 5 on the axes is

(A) $5x - 3y = 15$ (B) $5x + 3y = 15$

(C) $5x + 3y = 1$ (D) $15x + 15y = 1$

53. The angle between the lines whose slopes are $\sqrt{3}$ and $\frac{1}{\sqrt{3}}$ respectively is

(A) $\frac{\pi}{6}$ (B) $\frac{\pi}{3}$

(C) $\frac{\pi}{4}$ (D) $\frac{\pi}{2}$

54. The equation of the straight line passing through (2, 3) and x intercept is twice its y intercept is

(A) $x + 2y = 8$ (B) $x - 2y = 8$

(C) $x + y = 4$ (D) $2x + 2y = 8$

55. The equation to the line passing through the point (–6, 7) and parallel to the line joining (3, 4) and (6, –8) is

(A) $4x + y + 31 = 0$ (B) $x + 4y - 1 = 0$

(C) $x - 4y + 1 = 0$ (D) $4x + y + 17 = 0$

56. $\lim_{\theta \to \pi/2} (\sec\theta - \tan\theta)$ is equal to

(A) 0 (B) 1

(C) $\frac{\pi}{2}$ (D) π

57. $\lim_{x \to 4} \frac{x-4}{3-\sqrt{13-x}}$ is equal to

(A) 3 (B) 9

(C) 6 (D) 0

Space For Rough Work

58. If $y = (1 + \log x)^5$, then $\frac{dy}{dx}$ is

(A) $5(\log x)^4$ (B) $\frac{5}{x}(1 + \log x)^4$

(C) $5(1 + \log x)^4$ (D) $5x^4 \log x$

59. If $x = \cos^{-1} t$ and $y = \sin^{-1} t$, then $\frac{dy}{dx}$ is

(A) -1 (B) 1

(C) $\frac{1}{2\sqrt{1-t^2}}$ (D) $\frac{2}{\sqrt{1-t^2}}$

60. If $y = x \log y$, then $\frac{dy}{dx}$ is

(A) $\frac{\log x^x}{x-y}$ (B) $\frac{\log y^x}{x-y}$

(C) $\frac{\log y^y}{x-y}$ (D) $\frac{\log y^y}{y-x}$

61. If $y = \frac{x+1}{x+2}$, then $\frac{dy}{dx}$ is

(A) $\frac{1}{(x+2)^2}$ (B) $\frac{2x+3}{(x+2)^2}$

(C) $-\frac{1}{(x+2)^2}$ (D) $\frac{2x-3}{(x+2)^2}$

62. The equation of tangent to the curve $y^2 = 4x$ at $(1, 2)$ is

(A) $x + y - 3 = 0$ (B) $x - y + 1 = 0$

(C) $2x - y = 0$ (D) $2x + y - 4 = 0$

Space For Rough Work

63. The maximum value of $7 - 8x - 2x^2$ is

(A) 15 (B) –4

(C) –2 (D) 31

64. The value of $\int \log 2x \, dx$ is

(A) $x \log 2x + x + C$ (B) $x \log 2x - x + C$

(C) $\frac{1}{2x} + C$ (D) $\frac{1}{x} + C$

65. The value of $\int \sec^4 x \cdot \tan x \, dx$

(A) $\frac{\sec^4 x}{4} + C$ (B) $4 \sec^4 x + C$

(C) $3 \sec^2 x + C$ (D) $\frac{\tan^4 x}{4} + C$

66. The value of $\int x \log x \, dx$ is

(A) $\frac{x^2}{2} \log x - \frac{x^2}{2} + C$ (B) $\frac{x^2}{2} \log x + \frac{x^2}{2} + C$

(C) $\frac{x^2}{2} \log x - \frac{x^2}{4} + C$ (D) $\frac{x^2}{2} \log x + \frac{x^2}{4} + C$

67. $\int_0^{\pi/4} \tan^2 x \, dx$ is equal to

(A) $\frac{\pi}{4} - 1$ (B) $1 - \frac{\pi}{4}$

(C) $\frac{\pi^2}{16}$ (D) $\frac{\pi^2}{16} - 1$

Space For Rough Work

68. The value of $\int_0^1 x\sqrt{1-x^2}\,dx$ is

(A) $-\frac{1}{3}$ (B) 0

(C) ∞ (D) $\frac{1}{3}$

69. The volume generated by revolving the line $y = x + 1$ about the x-axis between the ordinates $x = 0$ and $x = 2$

(A) $\frac{26\pi}{3}$ units (B) $\frac{10\pi}{3}$ units

(C) $\frac{26}{3}$ units (D) 4 units

70. The degree and order of the differential equation $\frac{d^2y}{dx^2} = \left[1+\left(\frac{dy}{dx}\right)^2\right]^{1/3}$ are

(A) 2 and 1 (B) 1 and 2

(C) 3 and 2 (D) 2 and 3

71. The solution of differential equation $\frac{dy}{dx} + y \tan x = \sec x$ is

(A) $y \sec x = \tan x + C$

(B) $y \sin x = \sec x + C$

(C) $\log(\sec x) = \tan x + C$

(D) $y \sec x = -\cot x + C$

Space For Rough Work

72. The value of x if $\begin{vmatrix} 1 & 2 & 3 \\ 2 & x & 3 \\ 3 & 4 & 3 \end{vmatrix} = 0$ is

(A) 0 (B) -3

(C) 3 (D) 18

73. The value of x, if $4x + y = 7$, $3y + 4z = 5$ and $3z + 5x = 2$ is

(A) 0 (B) 1

(C) 3 (D) -1

74. If $A = \begin{bmatrix} 2 & -1 \\ 3 & -4 \end{bmatrix}$, then A^{-1} is

(A) $-\frac{1}{5}\begin{bmatrix} -4 & -3 \\ 1 & 2 \end{bmatrix}$ (B) $-\frac{1}{5}\begin{bmatrix} -4 & 1 \\ -3 & 2 \end{bmatrix}$

(C) $-\frac{1}{11}\begin{bmatrix} -4 & -3 \\ 1 & 2 \end{bmatrix}$ (D) $-\frac{1}{11}\begin{bmatrix} -4 & 1 \\ -3 & 2 \end{bmatrix}$

75. The characteristic equation of the matrix $A = \begin{bmatrix} 2 & -1 \\ 5 & -6 \end{bmatrix}$ is

(A) $A^2 + 8A - 7I = 0$ (B) $A^2 + 4A - 17I = 0$

(C) $A^2 + 4A + 7I = 0$ (D) $A^2 + 4A - 7I = 0$

Space For Rough Work

76. If $\begin{bmatrix} 2 & 3 \\ 1 & 2 \end{bmatrix} + A = \begin{bmatrix} 5 & 1 \\ 3 & 2 \end{bmatrix}$, then A is

(A) $\begin{bmatrix} 3 & 2 \\ -2 & 0 \end{bmatrix}$ (B) $\begin{bmatrix} 3 & -2 \\ 2 & 0 \end{bmatrix}$

(C) $\begin{bmatrix} -2 & 3 \\ 2 & 0 \end{bmatrix}$ (D) $\begin{bmatrix} 0 & 3 \\ -2 & 2 \end{bmatrix}$

77. The middle term of the expansion of $\left(x^2 - \frac{2}{x}\right)^{24}$ is

(A) ${}^{24}C_{10}2^{10}x^{12}$ (B) ${}^{24}C_{11}2^{12}x^{12}$

(C) ${}^{24}C_{13}2^{10}x^{10}$ (D) ${}^{24}C_{12}2^{12}x^{12}$

78. The term independent of x in $\left(x^2 - \frac{4}{3x}\right)^9$ is

(A) ${}^{9}C_{6}(4)^{6}$ (B) ${}^{9}C_{6}(3)^{-6}$

(C) ${}^{9}C_{6}\left(\frac{4}{3}\right)^{6}$ (D) ${}^{9}C_{6}\left(\frac{3}{4}\right)^{6}$

79. If $3i - 2j + k$, $i - 3j + 5k$, $2i + j - 4k$ are the sides of a triangle, then the triangle is

(A) Right angled triangle (B) Equilateral triangle

(C) Isosceles triangle (D) Isosceles right angled triangle

80. If $\vec{a} = (2, -1, 4)$ and $\vec{b} = (2, -3, 4)$, then projection of $\vec{a}$ on $\vec{b}$ is

(A) $\frac{23}{\sqrt{21}}$ (B) $\frac{23}{\sqrt{29}}$

(C) $\frac{-23}{\sqrt{29}}$ (D) $\frac{-23}{\sqrt{21}}$

Space For Rough Work

PART-C

COMPUTER SCIENCE

It consists of **81** to **180** questions :

81. The loading of operating system from hard disk to main memory is called

(A) Restart (B) Booting

(C) Start (D) Shut down

82. dpi stands for

(A) dots per ink (B) data per inch

(C) dots per inch (D) data per ink

83. The output of AND gate is HIGH when

(A) Any input is HIGH (B) All inputs are HIGH

(C) All inputs are LOW (D) Any input is LOW

84. The simplified form of $(\bar{A} + B)(A + B)$ is

(A) A (B) A + B

(C) B (D) $\bar{A}B$

85. Which law states $A(B + C) = AB + AC$?

(A) Commutative (B) Distributive

(C) Associative (D) Demorgan

86. Multiplexer has

(A) Many data input lines and one output line

(B) One input line and several output lines

(C) One input line and one output line

(D) Many input lines and many output lines

87. A n bit counter has minimum _____ flip flops.

(A) n – 1 (B) n^2

(C) n (D) 2^n

Space For Rough Work

88. A 'C' variable cannot start with _____.

(A) 2 (B) Z

(C) alphabet (D) none of these

89. The symbol for Bitwise AND operator is _____

(A) && (B) &

(C) AND (D) None of these

90. The one and only ternary operator available in C is

(A) Increment operator (B) Decrement operator

(C) Conditional operator (D) Assignment

91. The only special character allowed in constructing variable name in C is

(A) Hyphen (B) Underscore

(C) Caret (D) Colon

92. Which of the following is not a C language keyword ?

(A) union (B) void

(C) new (D) default

93. The compiler will give error if you try to access array element at position 14 in a 10 element size array.

(A) true (B) false

(C) cannot say (D) none of these

94. A pointer is declared by using a statement such as

(A) int *P ; (B) point ;

(C) point *P ; (D) int P ;

Space For Rough Work

95. The structure member operator is

(A) period (·) (B) s

(C) & (D) >

96. How many structure variables of a given type can be used in a program ?

(A) 0 (B) 1

(C) as many as you like (D) as many as elements in the structure

97. There are _____ memory management functions for allocating and freeing memory dynamically.

(A) 2 (B) 3

(C) 4 (D) 5

98. If fopen ( ) fails it returns

(A) 1 (B) – 1

(C) NULL (D) the file pointer

99. Each string ends with a special character _____.

(A) \n (B) "

(C) \o (D) END

100. The following function finds the length of a string :

(A) strlen() (B) len()

(C) strlength() (D) length()

101. Shorthand notation for a = a + 2 is _____

(A) a = +2 (B) a + = 2

(C) a++ (D) all of the above

Space For Rough Work

102. By default, _____ is the return type of a C function.

(A) int (B) float

(C) void (D) double

103. In _____ notation, the operator appears before the operands.

(A) infix (B) postfix

(C) prefix (D) suffix

104. If A = 3, B = 4 and C = 5 the value of ABC*+ is

(A) 23 (B) 60

(C) 27 (D) 35

105. Trying to push an element into a stack that is full leads to

(A) overflow (B) underflow

(C) full (D) null

106. A data structure where elements can be added or removed at either end but not in the middle is _____

(A) linked list (B) stack

(C) queue (D) dequeue

107. The data structure which allows deletions at both ends of the list but insertion at only one end is

(A) input-restricted dequeue (B) output-restricted dequeue

(C) priority queue (D) none of these

108. NULL pointer is used to tell _____

(A) end of linked list (B) empty pointer field of a structure

(C) the variable list is empty (D) none of these

Space For Rough Work

109. Each node of a doubly linked list has _____

(A) two fields (B) one field

(C) three fields (D) four fields

110. A strictly binary tree of depth 'd' and all of whose leaves are at level 'd' is called _____ binary tree.

(A) complete (B) incomplete

(C) almost complete (D) B-tree

111. The binary tree traversed in post order is

(A) left, root, right (B) left, right, root

(C) root, left, right (D) right, left, root

112. A _____ node in a tree is the first node in hierarchical arrangement of nodes.

(A) root (B) leaf

(C) non-leaf (D) child

113. _____ address of a station on the same network can be accessable by bridge.

(A) Port (B) Physical

(C) Logical (D) Virtual

114. _____ internetworking device operates at transport layer.

(A) Repeater (B) Bridge

(C) Router (D) Gateway

115. The signal is in the form of _____ wave in fiber optics.

(A) Light (B) Infrared

(C) Low frequency (D) radio

Space For Rough Work

116. Microwaves are _____.

(A) Bidirectional (B) Unidirectional

(C) Omnidirectional (D) None of these

117. The conductors in co-axial cable will have

(A) Same diameter (B) Equal resistance

(C) A common axis (D) None of these

118. Copper wire is an example of _____ media.

(A) Group (B) Guided

(C) Unguided (D) Ungroup

119. _____ is used to configure VLAN.

(A) Software (B) Hardware

(C) Mindware (D) Thinwire

120. Repeater works or operates only in the _____ layer.

(A) Transport (B) Physical

(C) Network (D) None of these

121. The backbone is just one switch in a _____ backbone.

(A) Ring (B) Bus

(C) Star (D) None of these

122. We do not send entire frame and then look for a _____ in CSMA/CD.

(A) Delay (B) Collision

(C) Station (D) Signal

Space For Rough Work

123. Where does the default parameter is placed by the user in C++ function ?

(A) Leftmost (B) Rightmost

(C) Middle (D) Anywhere

124. cout is a

(A) operator (B) function

(C) object (D) macro

125. The concept that determines what method to invoke during runtime.

(A) Data hiding (B) Dynamic loading

(C) Dynamic binding (D) Dynamic typing

126. Regarding constructor

(A) A constructor has return type

(B) A constructor cannot be overloaded

(C) A constructor has a different name than the class in which it is present

(D) A constructor has the same name as the class in which it is present

127. Whenever an object goes out of scope,

(A) the default constructor of the object is called.

(B) the parameterized destructor is called.

(C) copy constructor is called.

(D) the destructor of the object is called.

128. The operator cannot be overloaded

(A) + (B) ++

(C) : : (D) <<

129. Operator overloading is

(A) Creating new operators in C++

(B) Giving new meaning to existing C++ operators

(C) To load C++ operators to memory

(D) To bring other language operators to C++

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130. Multiple inheritance is

(A) Deriving a single class from one base class.

(B) Deriving more than one class from one base class.

(C) Deriving one class from more than one base class.

(D) Combination of more than one inheritance type.

131. If base class has constructor with arguments then it is _____ for the derived class to have constructor.

(A) Optional (B) Mandatory

(C) Error (D) Compiler dependent

132. A protected member of the base class is accessed in

(A) Only in same class (B) same class and derived class

(C) Outside the class (D) Only in derived class

133. write () is a member function of

(A) istream (B) ostream

(C) stream (D) file

134. The function used to change the locations of the get position

(A) tellg() (B) seekg()

(C) sg() (D) tg()

135. The correct syntax to close a file is

(A) infile : close() (B) infile $ close()

(C) infile · close() (D) infile ? close()

Space For Rough Work

136. argv[0] in command line arguments is

(A) The name of the files which are passed to the program.

(B) The name by which the program was invoked.

(C) Count of arguments.

(D) None of these.

137. The function template is

(A) Creating a function without having to specify the exact type

(B) Creating a function with having a exact type.

(C) Creating a class without having to specify the exact type.

(D) None of these.

138. By default the variable declared inside the interface

(A) public, final and static (B) private, final and static

(C) protected, final and static (D) friendly, final and static

139. A package is a collection of

(A) editing tools (B) classes

(C) interfaces (D) classes and interfaces

140. The use of protected keyword to a member in a class will restrict its visibility as

(A) Visible only in the class and its subclass in the same package.

(B) Visible only inside the same package.

(C) Visible in all classes in the same package and subclasses in other packages.

(D) Visible only in the class where it is declared.

141. The thread can be killed by using the method _____.

(A) kill() (B) dead()

(C) exit() (D) stop()

Space For Rough Work

142. The method _____ is not used to implement interthread communication.

(A) notify() (B) notifyall()

(C) yield() (D) wait()

143. _____ is a technique of removing process temporarily from main memory and place them on secondary memory or vice versa.

(A) Swapping (B) Fragmentation

(C) Thrashing (D) dispatch

144. _____ scheduler selects process from job queue.

(A) Short term (B) Long term

(C) Medium term (D) None of these

145. The interval from the time of submission of a process to the time of completion is known as _____.

(A) turnaround time (B) throughput

(C) waiting time (D) response time

146. In _____ scheduling algorithm, the processes are permanently assigned to the queue.

(A) multilevel queue (B) multilevel feedback queue

(C) RR (D) SJF

147. The base register is also known as _____ register.

(A) limit (B) relocation

(C) stack (D) instruction

Space For Rough Work

148. _____ register specifies the length of the segment.

(A) Relocation (B) Limit

(C) Base (D) Instruction

149. Wasting of memory between partition due to scattering of the free space into a number of discontiguous area is called _____.

(A) internal fragmentation (B) external fragmentation

(C) compaction (D) paging

150. In memory allocation, allocating smallest hole that is big enough to the requesting process is _____.

(A) Best fit (B) Worst fit

(C) First fit (D) Last fit

151. Suppose that a process is in BLOCKED state waiting for some I/O service. When the service is completed it goes to the _____ state.

(A) Running (B) Ready

(C) Suspend (D) Dead

152. _____ maps logical address to physical address.

(A) Cache (B) CPU

(C) MMU (D) RAM

153. The tables in SQL are also called as _____ in Relational algebra.

(A) Attributes (B) Tuple

(C) Domain (D) Relation

Space For Rough Work

154. _____ is not an aggregate function.

(A) Min (B) Avg

(C) Max (D) Select

155. _____ is the structure of the database.

(A) Relation (B) Table

(C) Schema (D) Domain

156. _____ is an example for DDL command.

(A) delete (B) insert

(C) select (D) drop

157. The special form of association is called

(A) Aggregation (B) Specialization

(C) Generalization (D) Serialization

158. The Script execution in PHP is terminated using _____ function.

(A) Quit() (B) die()

(C) break() (D) terminate()

159. The uninitialized variables in PHP have _____ value.

(A) ϕ (B) undef

(C) -1 (D) 1

160. In PHP, the state information on a client's computer is maintained using

(A) state (B) resource

(C) bool (D) cookies

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161. The function strcmp returns _____ in PHP, if the first string alphabetically precedes the second string.

(A) −1 (B) ϕ

(C) 1 (D) NIL

162. PHP stores the environment variables & their values in the _____.

(A) $_SERVER (B) $_ENV

(C) $Key (D) $value

163. _____ function is used to specify case-insensitive pattern matches in PHP.

(A) ereg (B) preg

(C) eregi (D) eregignore

164. _____ is used to display superscript in XML.

(A) msub (B) msup

(C) super (D) sub

165. In XML, _____ method returns the name of the attribute.

(A) getValue (B) getData

(C) getName (D) getLength

166. _____ is not an entity in XML.

(A) < (B) >

(C) & (D) &eq;

167. _____ keyword specifies that the attribute must be in the document.

(A) #FIXED (B) #VARIABLE

(C) #IMPLIED (D) #REQUIRED

Space For Rough Work

168. The most used layout of a keyboard is

(A) QWERTY (B) SULTRY

(C) AZERTY (D) DVORAK

169. The physical form of output is known as _____

(A) Hard copy (B) Soft copy

(C) Hardware (D) Software

170. A plotter is a _____ device.

(A) Input (B) Storage

(C) Output (D) All of these

171. Which of the following is not a magnetic disk ?

(A) Floppy disk (B) Hard disk

(C) Optical disk (D) Zip disk

172. The time taken by the read/write head to move onto the desired track is called _____

(A) latency time (B) seek time

(C) response time (D) access time

173. _____ retains stored information as long as the power supply is on.

(A) static RAM (B) dynamic RAM

(C) ROM (D) EPROM

Space For Rough Work

174. _____ are the basic components of the second generation computers.

(A) Vacuum tubes (B) Microprocessor

(C) Transistors (D) IC

175. Full form of PDA is

(A) Personal Digital Assistant (B) Private Digital Assistant

(C) Personal Data Assistant (D) Personal Discrete Assistant

176. RAM is a _____ memory.

(A) volatile (B) non-volatile

(C) permanent (D) versatile

177. _____ looks like photocopier machine.

(A) Hand held scanner (B) Flat bed scanner

(C) Bar code reader (D) Light pen

178. _____ printer is an example for impact printer.

(A) Inkjet (B) Dot matrix

(C) Laser (D) All of these

179. The characteristic of the computer which tells that the computer does not suffer from tiredness and lack of concentration is

(A) Versatility (B) Reliability

(C) Diligence (D) Accuracy

180. VGA stands for

(A) Video Graphics Array (B) Versatile Graphics Array

(C) Vast Graphics Array (D) All of these

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B-1