

D-C E T – 2018



CS	COURSE	VERSION CODE		200961	QUESTION BOOKLET SERIAL NUMBER	
	COMPUTER SCIENCE	A				
MAXIMUM MARKS	TOTAL DURATION	TIME				
180	200 Minutes	10.00 a.m. to 1.00 p.m.				
MAXIMUM TIME FOR ANSWERING	MENTION YOUR DIPLOMA CET NUMBER					
180 Minutes						

DOs :

1. Candidate must verify that the DCET number and Name printed on the OMR Answer Sheet is tallying with the DCET number and Name printed on the Admission Ticket. Discrepancy if any, report to invigilator.
2. This question booklet is issued to you by the invigilator after the **2nd bell i.e., after 9.50 a.m.**
3. The Version Code of this Question Booklet should be entered on the OMR Answer Sheet and the respective circle should also be shaded completely.
4. The Version Code and Serial Number of this question booklet should be entered on the Nominal Roll without any mistakes.
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 seal present on the right hand side of this question booklet.
 - Do not look inside this question booklet.
 - Do not start answering on the OMR answer sheet.

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 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 ballpoint pen against the question number on the OMR answer sheet.**

ಸರಿಯಾದ ಕ್ರಮ CORRECT METHOD	ತಪ್ಪು ಕ್ರಮಗಳು WRONG METHODS
① ● ③ ④	✕ ② ③ ④ ① ② ③ ✓ ① ● ● ④ ● ② ③ ④ ① ● ③ ④

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. Hand over the **OMR answer sheet** to the room invigilator as it is.
7. After separating the top sheet (Dept. 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.**

[P.T.O.]





PART - A

It consists of 1 - 40 questions.

1. If $A = \begin{bmatrix} 3 & 0 \\ -2 & 1 \end{bmatrix}$, then $2A - 3A^T =$

(1) $\begin{bmatrix} -3 & -6 \\ -4 & 1 \end{bmatrix}$

(2) $\begin{bmatrix} -3 & 6 \\ -2 & 1 \end{bmatrix}$

(3) $\begin{bmatrix} -3 & 6 \\ -4 & -1 \end{bmatrix}$

(4) $\begin{bmatrix} -3 & 6 \\ 4 & -1 \end{bmatrix}$

2. If $[3 \ 4 \ x] \begin{bmatrix} -1 \\ 2 \\ 5 \end{bmatrix} = [2x + 8]$ then the value of $x =$

(1) 1

(2) -1

(3) $-\frac{1}{2}$

(4) $\frac{1}{2}$

3. If $\begin{vmatrix} 3 & m-1 \\ m+1 & 2 \end{vmatrix} = 3$, then the value of $m =$

(1) ± 1

(2) $\pm\sqrt{2}$

(3) ± 3

(4) ± 2

4. In solving simultaneous linear equations $x - y = 4$, $2y + 3z = -2$ and $3x + y + 2z = 1$ using Cramer's rule, the value of determinant of co-efficients of x , y and z is

(1) 6

(2) 12

(3) -8

(4) -16

SPACE FOR ROUGH WORK



5. If $A = \begin{bmatrix} -2 & 5 \\ 2 & -3 \end{bmatrix}$, then inverse of $A =$

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

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

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

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

6. The characteristic roots of the matrix $\begin{bmatrix} 4 & -2 \\ -3 & -1 \end{bmatrix}$ are

(1) 2 and -5

(2) -2 and 5

(3) -2 and -5

(4) 2 and 5

7. If $\vec{a} = 2\hat{i} - 3\hat{j} + 5\hat{k}$

$\vec{b} = 3\hat{i} - 2\hat{j} - 5\hat{k}$ and

$\vec{c} = \hat{i} + 4\hat{k}$

then the scalar product of $\vec{a} + \vec{b}$ and $\vec{b} - \vec{c}$ is

(1) -9

(2) 9

(3) 20

(4) -20

8. If A, B and C are three consecutive vertices of a parallelogram with position vectors $3\hat{i} - 2\hat{j} + \hat{k}$, $2\hat{i} + \hat{j} - \hat{k}$ and $\hat{i} - \hat{j} + \hat{k}$, then area of the parallelogram is

(1) $3\sqrt{5}$ sq. units

(2) $5\sqrt{3}$ sq. units

(3) $2\sqrt{5}$ sq. units

(4) $5\sqrt{2}$ sq. units

9. Work done by the force $2\hat{i} - 3\hat{j} + 5\hat{k}$ in moving a particle from $(-3, 1, 2)$ to $(1, -1, 1)$ is

(1) 3

(2) 9

(3) 6

(4) 15

SPACE FOR ROUGH WORK



10. The probability of drawing a non-diamond card from a well shuffled deck of 52 cards is

(1) $\frac{3}{4}$

(2) $\frac{1}{2}$

(3) $\frac{1}{4}$

(4) $\frac{12}{13}$

11. If $\tan\theta = \frac{2}{3}$ and $\pi < \theta < \frac{3\pi}{2}$, then $\sin\theta + \cos\theta =$

(1) $\frac{5}{\sqrt{13}}$

(2) $\frac{-1}{\sqrt{13}}$

(3) $\frac{1}{\sqrt{13}}$

(4) $\frac{-5}{\sqrt{13}}$

12. If $\tan A + \tan B + \tan A \tan B = 1$, then $A + B =$

(1) 180°

(2) 90°

(3) 45°

(4) 360°

13. $\sqrt{\frac{1 - \cos 40^\circ}{1 + \cos 40^\circ}} =$

(1) $\tan 20^\circ$

(2) $\cot 40^\circ$

(3) $\tan 10^\circ$

(4) $\tan 40^\circ$

14. If $\tan A = \frac{1}{2}$ and $\tan B = \frac{2}{3}$ then $\tan(A - B)$ is

(1) -1

(2) 1

(3) $\frac{-1}{8}$

(4) $\frac{1}{8}$

SPACE FOR ROUGH WORK



15. The numerical value of $\sin 10^\circ \sin 50^\circ \sin 70^\circ =$

(1) $\frac{\sqrt{3}}{8}$

(2) $\frac{1}{8}$

(3) $\frac{3}{16}$

(4) $\frac{1}{16}$

16. $\frac{\sin 12^\circ + \cos 12^\circ}{\sin 12^\circ - \cos 12^\circ} =$

(1) $\cot 33^\circ$

(2) $-\tan 33^\circ$

(3) $-\tan 57^\circ$

(4) $\tan 57^\circ$

17. The polar form of the complex number $\sqrt{3} - i$ is

(1) $2 \left[\cos \frac{\pi}{6} + i \sin \frac{\pi}{6} \right]$

(2) $2 \left[\cos \frac{\pi}{6} - i \sin \frac{\pi}{6} \right]$

(3) $2 \left[\cos \frac{\pi}{3} + i \sin \frac{\pi}{3} \right]$

(4) $2 \left[\cos \frac{\pi}{3} - i \sin \frac{\pi}{3} \right]$

18. The value of $\lim_{x \rightarrow \infty} x \left[\sqrt{x^2 + 1} - x \right]$ is

(1) 1

(2) 2

(3) $\frac{1}{2}$

(4) 0

19. The value of $\lim_{x \rightarrow 3} \frac{x\sqrt{x} - 3\sqrt{3}}{\sin(x-3)}$ is

(1) $\frac{3\sqrt{3}}{2}$

(2) $3\sqrt{3}$

(3) $\frac{2}{3\sqrt{3}}$

(4) $\frac{1}{3\sqrt{3}}$

SPACE FOR ROUGH WORK



20. The value of $\lim_{x \rightarrow 0} \frac{1 - \sqrt{\cos x}}{x^2}$ is

(1) 1

(2) $\frac{1}{4}$

(3) 2

(4) $-\frac{1}{2}$

21. The equation of line passing through the point (1, -3) and having slope $\frac{1}{2}$ is

(1) $x - 2y - 7 = 0$

(2) $2x - y + 7 = 0$

(3) $x - 2y - 4 = 0$

(4) $x - y + 4 = 0$

22. The equation of line passing through the point (-2, 3) and parallel to the line $5x + 3y + 5 = 0$ is,

(1) $5x + 3y - 19 = 0$

(2) $5x + 3y + 1 = 0$

(3) $5x + 3y + 19 = 0$

(4) $3x - 5y + 1 = 0$

23. If $y = e^x \log x$ then $\frac{dy}{dx}$ is

(1) $e^x \left[\frac{1}{x} + \log x \right]$

(2) $e^x \left[\frac{1}{x} - \log x \right]$

(3) $e^x \cdot \frac{1}{x}$

(4) $e^x + \frac{1}{x}$

24. If $y = \log (\tan x + \sec x)$, then $\frac{dy}{dx}$ is,

(1) $-\sec x$

(2) $\sec x$

(3) $\frac{\sec x}{\tan x + \sec x}$

(4) $\log(\sec^2 x + \tan x \sec x)$

SPACE FOR ROUGH WORK



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

(1) $\frac{1+x}{y}$

(2) $\frac{x}{y}$

(3) $\frac{-x}{y}$

(4) $\frac{1-x}{y}$

26. If $x = \frac{1}{t}$; $y = 3t^3$ then $\frac{dy}{dx}$ is,

(1) $-6t^4$

(2) $-9t^4$

(3) -6

(4) -9

27. If $y = (\sin x)^{\log x}$ then $\frac{dy}{dx}$ is

(1) $(\sin x)^{\log x} \left[\log x \cos x + \frac{\log \sin x}{x} \right]$

(2) $(\sin x)^{\log x} \left[\frac{\log x}{\sin x} + \frac{\log \sin x}{x} \right]$

(3) $(\sin x)^{\log x} [-\log x \cot x + \log \sin x]$

(4) $(\sin x)^{\log x} \left[\log x \cot x + \frac{\log \sin x}{x} \right]$

28. If $y = e^{5x} + e^{-5x}$ then $\frac{d^2y}{dx^2}$ at $x = 0$ is,

(1) 25

(2) -25

(3) 50

(4) -50

29. The rate of change of volume of a sphere with respect to radius, when its radius 3 cm is

(1) 3π

(2) 6π

(3) 18π

(4) 36π

30. The equation of normal to the curve $y = x^2$ at $(2, 2)$ is

(1) $x - 4y - 10 = 0$

(2) $x - 4y + 10 = 0$

(3) $x + 4y - 10 = 0$

(4) $x + 4y + 10 = 0$

SPACE FOR ROUGH WORK



31. The value of $\int e^{5 \log x} dx$ is

(1) $5x^4 + C$

(2) $\frac{x^6}{6} + C$

(3) $6x^6 + C$

(4) $\frac{x^5}{5} + C$

32. The value of $\int \frac{\cos x - \sin x}{\cos x} dx$ is

(1) $x - \cos x + C$

(2) $x + \cos x + C$

(3) $x + \log \sec x + C$

(4) $x - \log \sec x + C$

33. The value of $\int (2 + \sin^3 x) \cos x dx$ is,

(1) $2 \sin x + \frac{(\sin x)^4}{4} + C$

(2) $\frac{\sin^4 x}{4} + C$

(3) $2 \cos x + \frac{(\cos x)^4}{4} + C$

(4) $\frac{\cos^4 x}{4} + C$

34. The value of $\int \frac{x+5}{x^2+10x-5} dx$ is,

(1) $\log (x^2 + 10x - 5)^2 + C$

(2) $\frac{1}{2} \log (x^2 + 10x - 5) + C$

(3) $\frac{1}{2} \log (x + 5) + C$

(4) $\log (x + 5)^2 + C$

35. The value of $\int 4x \log 5x dx$ is,

(1) $\frac{x^2 \log 5x}{2} - \frac{x^2}{4} + C$

(2) $\frac{x \log 5x}{5} + \frac{x^2}{2} + C$

(3) $5x \log 5x + 1 + C$

(4) $2x^2 \log 5x - x^2 + C$

SPACE FOR ROUGH WORK



36. $\int_0^{\frac{\pi}{4}} \frac{\sec^2 x}{1 + \tan x} dx =$

- (1) $-\log 2$ (2) $\log 2$
 (3) $\log 3$ (4) $\log 4$

37. The volume of a solid generated by revolving the curve $y = \tan x$ about x-axis between the lines $x = 0$ and $x = \frac{\pi}{4}$ is,

- (1) $\pi + \frac{\pi^2}{4}$ cu. units (2) $1 + \frac{\pi}{4}$ cu. units
 (3) $1 - \frac{\pi}{4}$ cu. units (4) $\pi - \frac{\pi^2}{4}$ cu. units

38. Order and degree of differential equation $\frac{d^2y}{dx^2} = \sqrt{1 - \frac{dy}{dx}}$ are

- (1) 2 and 2 respectively (2) 2 and 1 respectively
 (3) 1 and 2 respectively (4) 1 and 1 respectively

39. The differential equation obtained by eliminating the arbitrary constants from the equation $y^2 = a \sin x + b \cos x$ is

- (1) $2y \frac{d^2y}{dx^2} + 2 \left(\frac{dy}{dx} \right)^2 - y^2 = 0$ (2) $\frac{d^2y}{dx^2} + \left(\frac{dy}{dx} \right)^2 + y^2 = 0$
 (3) $2y \frac{d^2y}{dx^2} - 2 \left(\frac{dy}{dx} \right)^2 + y^2 = 0$ (4) $2y \frac{d^2y}{dx^2} + 2 \left(\frac{dy}{dx} \right)^2 + y^2 = 0$

40. The solution of differential equation $x \frac{dy}{dx} + y = x - 1$ is

- (1) $xy = x - \frac{x^2}{2} + C$ (2) $xy = \frac{x^2}{2} - x + C$
 (3) $xy + \frac{x^2}{2} + x = C$ (4) $xy - \frac{x^2}{2} - x = C$

SPACE FOR ROUGH WORK



PART - B

It consists of 41 – 80 questions.

41. The value of 20 peta Hertz is

- (1) 20×10^9 Hz (2) 20×10^{12} Hz
(3) 20×10^{15} Hz (4) 20×10^{18} Hz

42. The total reading for Screw Gauge is found by

- (1) $TR = PSR + (HSR \times LC) \pm ZE$
(2) $TR = PSR + (HSR \times LC) \pm ZC$
(3) $TR = (PSR + HSR) \times LC \pm ZE$
(4) $TR = (PSR + HSR) \times LC \pm ZC$

43. The least count of a slide calipers is 0.01 cm. In a setting the zero of the Vernier Scale lies between 3.2 cm and 3.3 cm and 5th division of the Vernier co-incides with the main scale division. The total reading is

- (1) 3.35 cm (2) 3.35 mm
(3) 3.25 cm (4) 3.25 mm

44. The rectangular component of a vector R are

- (1) $R_x = R \cos \theta$, $R_y = R \sin \theta$
(2) $R_x = R \sin \theta$, $R_y = R \cos \theta$
(3) $R_x = \cos \theta$; $R_y = \sin \theta$
(4) $R_x = -\cos \theta$; $R_y = -\sin \theta$

45. A body of weight 5 kg is suspended by means of a light string. It is pulled horizontally until the string makes an angle of 30° with the vertical. Then the horizontal force applied is

- (1) $\frac{1}{\sqrt{3}}$ kg wt (2) 5 kg wt
(3) $5\sqrt{3}$ kg wt (4) $\frac{5}{\sqrt{3}}$ kg wt

SPACE FOR ROUGH WORK



46. Among these which is the vector quantity ?
- (1) Work (2) Energy
(3) Surface tension (4) Power
47. The resultant of two like parallel forces P and Q acting at a point is
- (1) P + Q away from P
(2) P + Q away from Q
(3) P ~ Q in between P and Q
(4) P + Q in between P and Q
48. Shock absorbers in automobiles is an example for
- (1) Tensile stress (2) Compressive stress
(3) Shear stress (4) Breaking stress
49. The elasticity of steel compared to rubber is
- (1) More (2) Less
(3) Equal (4) Less than or equal
50. The stress-strain graph for an elastic body within elastic limit is
- (1) Linear (2) Curved
(3) Parabola (4) Hyperbola
51. The maximum stress of steel wire is 500 N/mm^2 , if the area of cross section of wire is 0.05 m^2 then the force is
- (1) 25 N (2) 25 KN
(3) 25 MN (4) 250 N
52. In case of concave meniscus, the angle of contact is
- (1) Acute (2) Right angle
(3) Linear (4) Obtuse

SPACE FOR ROUGH WORK



53. The surface tension of a liquid varies as
- (1) Directly with temperature, inversely with density
 - (2) Directly with both temperature and density
 - (3) Inversely with both temperature and density
 - (4) Inversely with temperature and directly with density
54. The thrust on the bottom of a container having base area 0.5 m^2 filled with water to a height of 6 cm is
- (1) 147 N
 - (2) 294 N
 - (3) 147 dynes
 - (4) 294 dynes
55. The fastest mode of transfer of heat is
- (1) Conduction
 - (2) Convection
 - (3) Radiation
 - (4) Transmission
56. Pressure is directly proportional to absolute temperature at constant volume is a statement of
- (1) Charle's law
 - (2) Boyle's law
 - (3) Gay-Lussac's law
 - (4) Boltzmann's law
57. Boyle's law is applicable for
- (1) Isothermal process
 - (2) Isobaric process
 - (3) Isochoric process
 - (4) Isotonic process
58. At absolute zero temperature, the pressure and volume of a given mass of gas is
- (1) 1
 - (2) 273
 - (3) -273
 - (4) 0
59. In cold countries, the windows are provided with double doors because
- (1) Air between two windows behaves as a perfect insulator
 - (2) Air between two windows behaves as a perfect conductor
 - (3) To strengthen the windows
 - (4) Security purpose

SPACE FOR ROUGH WORK



60. The sound waves and light waves can be differentiated by
- (1) Interference (2) Diffraction
(3) Reflection (4) Polarization
61. The velocity of sound in gas is independent of
- (1) Temperature (2) Pressure
(3) Humidity (4) Density
62. The superposition of two waves of same frequency moving in opposite direction is
- (1) Progressive wave (2) Transverse waves
(3) Sound wave (4) Stationary wave
63. For every degree raise of temperature, the velocity of sound waves in gas is increased by
- (1) 6 m/s (2) 60 m/s
(3) 0.6 s/m (4) 0.6 m/s
64. The angle between the particle vibration and wave propagation in a transverse wave is
- (1) 0° (2) 45°
(3) 90° (4) 180°
65. The original tension in the string if the frequency of a sonometer wire is doubled, when the tension is increased by 12 kg wt is
- (1) 2 kg wt (2) 4 kg wt
(3) 8 kg wt (4) 12 kg wt
66. At resonance, the body vibrates with
- (1) Small amplitude (2) Large amplitude
(3) Zero amplitude (4) Same amplitude

SPACE FOR ROUGH WORK



67. Beats occurs in mining due to the presence of

- (1) Ore
- (2) Water
- (3) Contaminated air
- (4) Fossils

68. The statement which is correct in these is

- (1) X-rays have longer wavelength than microwaves
- (2) Gamma rays have shorter wavelength than microwaves
- (3) UV-rays have shorter wavelength than violet rays
- (4) Red rays have longer wavelength than infrared rays

69. LASER is used in

- (1) LIDAR
- (2) RADAR
- (3) SONAR
- (4) GPS

70. Nano means

- (1) One hundredth of meter
- (2) One thousandth of meter
- (3) One millionth of meter
- (4) One billionth of meter

71. Microphone is a

- (1) Transducer
- (2) Receiver
- (3) Channel
- (4) Transmitter

72. The principle behind optical fibre is

- (1) Total internal refraction
- (2) Total internal reflection
- (3) Reflection
- (4) Refraction

73. Faraday's I law of electrolysis is represented mathematically as

- (1) $M = ZQ$
- (2) $Z = MQ$
- (3) $Q = MZ$
- (4) $M = \frac{Z}{Q}$

SPACE FOR ROUGH WORK



74. A galvanic cell setup between two dissimilar metals in contact is called
- (1) Concentration cell
 - (2) Composition cell
 - (3) Stress cell
 - (4) Secondary cell
75. In which of these cells the reaction can be reversed ?
- (1) Primary cell
 - (2) Secondary cell
 - (3) Solar cell
 - (4) Photo cell
76. The statement which is true for fuel cell is
- (1) They make more pollution
 - (2) They produce noise
 - (3) They liberate more heat
 - (4) They are heavy in weight
77. Alloy of steel is a mixture of
- (1) Chromium, iron and nickel
 - (2) Chromium, iron and zinc
 - (3) Chromium, iron and aluminium
 - (4) Chromium, iron and tin
78. The materials with weak intermolecular forces of attraction between polymer chains are
- (1) Elastomers
 - (2) Fibres
 - (3) Thermoplastic
 - (4) Thermosetting polymers
79. The type of composite material to which reinforced concrete belongs is
- (1) Laminate
 - (2) Particulate
 - (3) Short fibre
 - (4) Long fibre
80. pH value of a solution is given by
- (1) $-\log_{10}[\text{H}^+]$
 - (2) $-\log_e[\text{OH}^-]$
 - (3) $-\log_e[\text{H}^+]$
 - (4) $\log_{10}[\text{H}^+]$

SPACE FOR ROUGH WORK



PART – C

It consists of **81 – 180** questions.

81. What logic function is produced by adding an inverter to the output of an AND gate ?

- (1) NAND (2) NOR (3) XOR (4) OR

82. The function of a multiplexer is

- (1) to decode information
(2) to select 1 out of N input data sources and to transmit it to single channel
(3) to transit data on N lines
(4) to perform serial to parallel conversion

83. The full adder adds the K^{th} bits of 2 numbers to the

- (1) difference of the previous bits
(2) sum of all previous bits
(3) carry from $(k - 1)^{th}$ bit
(4) sum of previous bit

84. Number 84 in BCD is

- (1) 1000 0100 (2) 0100 0100
(3) 1000 1010 (4) 1000 1100

85. 2's complement can be obtained from 1's complement by

- (1) adding 1 (2) subtracting 1
(3) putting 1 as the leading bit (4) putting 0 as the leading bit

86. A device that works in conjunction with a computer but not as part of it is called

- (1) Microprocessor (2) Hardware
(3) Memory (4) Peripheral device

SPACE FOR ROUGH WORK



87. Which memory is non-volatile and may be written only once ?
- (1) RAM (2) EE – ROM
(3) EPROM (4) PROM
88. The major component used in second generation of computers is
- (1) Transistor (2) Diode
(3) Vacuum tube (4) IC's
89. A Kilobyte also referred to as KB, is equal to
- (1) 1000 bytes (2) 1024 bytes
(3) 2048 bytes (4) 512 bytes
90. Which of the following is not used as secondary storage ?
- (1) Semi-conductory memory
(2) Magnetic disk
(3) Optical disk
(4) Floppy disk
91. System with multiple CPU's is called
- (1) Time sharing system (2) Desktop system
(3) Client-server system (4) Parallel system
92. Which one of the following is a synchronization tool ?
- (1) Thread (2) Pipe
(3) Semaphore (4) Socket
93. Which one of the following is the address generated by CPU ?
- (1) Physical address (2) Absolute address
(3) Logical address (4) Virtual address

SPACE FOR ROUGH WORK



94. Virtual memory is normally implemented by
- (1) Demand Paging
 - (2) Buses
 - (3) Virtualization
 - (4) Segmentation
95. In segmentation each address is specified by
- (1) a segment number and offset
 - (2) an offset and value
 - (3) a value and segment number
 - (4) a key and value
96. The code that changes the value of the semaphore is
- (1) remainder section code
 - (2) non-critical section code
 - (3) entry section code
 - (4) critical section code
97. The system called used to create a new process is
- (1) fork
 - (2) create
 - (3) new
 - (4) open
98. If a system contains CPU bound processes then which of the following scheduling algorithm produces maximum efficiency of the CPU ?
- (1) FIFO
 - (2) Round Robin
 - (3) Priority
 - (4) SJF
99. Page fault occurs when
- (1) the page is corrupted by application software
 - (2) the page is in main memory
 - (3) the page is not in main memory
 - (4) one tries to divide a number by 0

SPACE FOR ROUGH WORK



100. A process is

- (1) a program in HLL kept on disk
- (2) contents of main memory
- (3) a job in secondary memory
- (4) a program in execution

101. Any C program

- (1) Must contain atleast one function
- (2) Need not contain any function
- (3) Needs input data
- (4) Must contain two functions only

102. If two strings are identical, then strcmp() function returns

- (1) - 1
- (2) 1
- (3) 0
- (4) Null

103. The format identifier "%i" is also used for _____ data type.

- (1) Char
- (2) Int
- (3) Float
- (4) Double

104. What is the size of float data type ?

- (1) 4 bytes
- (2) 8 bytes
- (3) Depends on system/compiler
- (4) Cannot be determined

105. Which of the following is ternary operator ?

- (1) &&
- (2) >>
- (3) <<
- (4) ?;

106. Do-while loop terminates conditional expression returns

- (1) zero
- (2) one
- (3) non-zero
- (4) - 1

SPACE FOR ROUGH WORK



107. If a variable is a pointer to structure then which of the following operator is used to access data member of structure through pointer variable ?

- (1) • (2) & (3) * (4) →

108. Address stored in the pointer variable is of type

- (1) Integer (2) Float (3) Array (4) Character

109. Which of the following function is more appropriate for reading in a multi-word string ?

- (1) scanf () (2) gets () (3) printf () (4) puts ()

✓ 110. Which of the following is the correct way to declare a float pointer ?

- (1) Float ptr (2) Float *ptr (3) * float ptr (4) Float ptr* ;

111. What is the right way to initialize an array ?

- (1) Int num [4] = {10, 20, 30, 40} (2) Int n{ } = {10, 20, 30, 40}
(3) Int n {4} = {10, 20, 30, 40} (4) Int n(4) = [10, 20, 30 40]

112. _____ is used during memory deallocation.

- (1) Remove (P) (2) Delete (P) (3) Free (P) (4) Terminate

113. Calloc () returns a storage that is initialized to

- (1) Zero (2) Null (3) Nothing (4) One

114. What is the return value of putchar() ?

- (1) The character written
(2) EOF if an error occurs
(3) Nothing
(4) Both character written and EOF if an error occurs

115. In command line argument 'argc' should be

- (1) Non negative (2) Non positive (3) Non zero (4) Both 2 and 3

SPACE FOR ROUGH WORK



116. A preprocessor command

- (1) Need not start on a new line
- (2) Need not start on the first column
- (3) Has # as the first character
- (4) Comes before the first executable statement

117. Stdout, Stdin and Stderr are

- (1) File pointer
- (2) File descriptors
- (3) Streams
- (4) Structure

118. What is the output if code is ?

```
void main ()  
{  
    int a = 0 ;  
    for (a < 5 ; a ++)  
        printf ("HELLO");  
}
```

- (1) Compile time error
- (2) HELLO printed five times
- (3) No printing
- (4) Varies

119. Which of the following is logical AND operator ?

- (1) !
- (2) ||
- (3) &
- (4) &&

SPACE FOR ROUGH WORK



120. What is the output of the following code ?

```
# Include <stdio.h>
# define square (x) x*x
Void Main()
{
    Int i ;
    i = 5 ;
    printf ("%d", square (i + i)) ;
}
```

- (1) 100 (2) 35 (3) 625 (4) Compile error

121. Which data structure is used for implementing postfix evaluation ?

- (1) Queue (2) Stack (3) Array (4) List

122. The type of expression in which operator succeeds its operands is _____ expression.

- (1) Infix (2) Prefix (3) Postfix (4) Both 1 & 2

123. Non-primitive data structure are those which defines set of

- (1) Stack elements (2) Vectors
(3) Derived elements (4) Non-derived elements

124. Process of inserting an element in stack is called

- (1) create (2) push (3) evaluation (4) pop

125. Empty stack condition is called

- (1) underflow (2) overflow
(3) garbage collection (4) empty collection

126. In linked representation of stack _____ behaves as the top pointer variable of stack.

- (1) STOP pointer (2) Begin pointer
(3) Start pointer (4) Avail pointer

SPACE FOR ROUGH WORK



127. New nodes are added to the _____ of the Queue.
- (1) Front (2) Rear
(3) Middle (4) Both 1 and 2
128. The operation of processing each element in the list is known as
- (1) Sorting (2) Merging
(3) Inserting (4) Traversal
129. Each node in the singly linked list has _____ fields.
- (1) 2 (2) 3 (3) 1 (4) 4
130. The data structure which permits traversing in both direction is
- (1) Singly linked list (2) Doubly linked list
(3) Queue (4) Circular list
131. The data model which describes how the data is actually stored is
- (1) Internal model (2) External model
(3) Logical model (4) Both 2 and 3
132. DBA stands for
- (1) Data Bank Access
(2) Data Base Administrator
(3) Data Bank Administrator
(4) Data Base Access
133. What does SQL stands for ?
- (1) Structured Question Language
(2) Strong Question Language
(3) Structured Query Language
(4) Unstructured Query Language

SPACE FOR ROUGH WORK



134. Which SQL keyword is used to sort the result set ?
(1) Order (2) Insert (3) Sort by (4) Order by
135. The result of a SQL SELECT statement is a _____
(1) FILE (2) Report (3) Table (4) Form
136. A view is a
(1) E-R diagram (2) Database diagram
(3) Virtual table (4) Only 1 and 2
137. Which SQL keyword is used to retrieve only unique values ?
(1) Distinctive (2) Unique (3) Distinct (4) Difficult
138. In the _____ normal form, a composite attribute is converted to individual attributes.
(1) First (2) Second (3) Third (4) Fourth
139. The complete description of database which is described in design phase and changed rarely is called
(1) Schema (2) Structure
(3) Path of design (4) Data cy.
140. Which of the following gives a logical structure of the database graphically ?
(1) E-R diagram
(2) Entity diagram
(3) Data base design
(4) Architectural representation
141. In java, which of these operation is used to allocate memory for an object ?
(1) malloc (2) alloc (3) new (4) give

SPACE FOR ROUGH WORK



142. Which component is responsible for converting byte code into machine specific code ?
- (1) JVM (2) JDK (3) JIT (4) JRE
143. What is the return type of constructor ?
- (1) int (2) float
(3) void (4) does not specify a return type
144. What is the name of method used to schedule a thread for execution ?
- (1) init () (2) start () (3) run () (4) resume ()
145. A package is a collection of
- (1) Classes
(2) Interfaces
(3) Editing tools
(4) Classes and Interfaces
146. Which keyword is used for the block to handle the exception generated by try block ?
- (1) catch (2) final
(3) throw (4) try
147. Which keyword is used by classes to implement an interface ?
- (1) import (2) implements
(3) instance of (4) extends
148. Java exception handling mechanism is meant to handle
- (1) Only compile time errors
(2) Only syntax error
(3) Only run time errors
(4) Both run time and compile time error

SPACE FOR ROUGH WORK



149. In Java, what is the output of relation operator ?
- (1) Integer (2) Boolean
(3) Character (4) Float
150. Which of these operators can be used to concatenate two or more string objects ?
- (1) + (2) += (3) & (4) ||
151. • Command to execute a compiled java program is
- (1) javaC (2) java (3) run (4) execute
152. What is the default priority of a newly created thread ?
- (1) MIN – PRIORITY
(2) MAX – PRIORITY
(3) NORM – PRIORITY
(4) ZERO – PRIORITY
153. In java size of int data type is
- (1) 4 bytes (2) 2 bytes
(3) depends on execution environment (4) 8 bytes
154. In java, division by zero error cause the exception
- (1) Null point exception
(2) Arithmetic exception
(3) Security exception
(4) Number format exception
155. _____ means the ability to take more than one form.
- (1) Class (2) Polymorphism
(3) Object (4) Inheritance

SPACE FOR ROUGH WORK



163. Method of communication in which transmission takes place in both directions, but only in one direction at a time, is called
- (1) Simplex
 - (2) Four Wire Circuit
 - (3) Full Duplex
 - (4) Half Duplex
164. Which topology requires a central controller or hub ?
- (1) Mesh
 - (2) Star
 - (3) Bus
 - (4) Ring
165. Class _____ has the greatest number of hosts per given network address.
- (1) B
 - (2) A
 - (3) D
 - (4) C
166. Gateways can function all the way upto
- (1) Transport layer
 - (2) Presentation layer
 - (3) Session layer
 - (4) Application layer
167. In OSI reference model, End to End connectivity is provided from host to host in the
- (1) Network layer
 - (2) Transport layer
 - (3) Session layer
 - (4) Physical layer
168. Decryption and Encryption of data are responsibility of
- (1) Physical layer
 - (2) Data link layer
 - (3) Presentation layer
 - (4) Session layer

SPACE FOR ROUGH WORK



169. A repeater takes a weak or corrupted signal and _____ it.
- (1) amplifies
 - (2) regenerates
 - (3) reroutes
 - (4) assembles
170. _____ cable is generally used for cable television connection.
- (1) Optical Fibre
 - (2) UTP
 - (3) STP
 - (4) Coaxial
171. HTML is a subset of
- (1) SGMT
 - (2) SGML
 - (3) SGMD
 - (4) XML
172. Which of the following tag is used to mark a beginning of paragraph ?
- (1) <TD>
 - (2)

 - (3) <P>
 - (4) <TP>
173. DTD begins with the word
- (1) # PCDATA
 - (2) XML
 - (3) DOCTYPE
 - (4) HTTPS
174. XML
- (1) can be used as database
 - (2) cannot be used as database
 - (3) XML is not a database, it is language
 - (4) XML is used to construct symbol table

SPACE FOR ROUGH WORK



175. How many root element can an XML document have ?

- (1) two (2) one (3) three (4) five

176. What will be output of the following PHP code ?

```
< ? PHP  
    print "echo hello world";  
? >
```

- (1) error (2) echo hello world
(3) nothing (4) hello world

177. Who is the father of PHP ?

- (1) Rasmus Lerdorf (2) Willam Makepiece
(3) Drek Kolkevi (4) List Barely

178. PHP numerically indexed array begin with _____ position.

- (1) - 1 (2) 2
(3) 0 (4) 1

179. Which in_built function will add a value to the end of an array ?

- (1) array _ unshift ()
(2) into _ array ()
(3) inend _ array ()
(4) array _ push ()

180. In PHP, in pattern matching the _____ regular expressions are compiled into PHP.

- (1) POSIX (2) POSTFIX
(3) PREFIX (4) INFIX

SPACE FOR ROUGH WORK



A

SEAL

SPACE FOR ROUGH WORK

A