

SECOND YEAR HIGHER SECONDARY EXAMINATION MARCH 2019

SUBJECT: COMPUTER SCIENCE & IT

CODE. NO: SY 52

| Qn No | Sub Qns | Answer Key/Value Points | Score | Total |
|-------|---------|---|---------|-------|
| 1. | | Self referential structure. | 1 | 1 |
| 2. | | Multiple inheritance. | 1 | 1 |
| 3. | | Empty tag | 1 | 1 |
| 4. | | 80 | 1 | 1 |
| 5. | | Dictionary | 1 | 1 |
| 6. | (a) | A variable that stores address | 1 | } 2 |
| | (b) | data type * pointer variable; Any one example. | 1/2 | |
| | | | 1/2 | |
| 7. | (a) | abstraction / data abstraction | 1 | } 2 |
| | (b) | Showing only the essential features and hiding details from outside world. | 1 | |
| 8. | (a) | <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">mark</div> <div style="border: 1px solid black; padding: 5px;">grade</div> </div> <div style="margin: 0 20px;">Single inheritance</div> </div> | | |
| | (b) | <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;">Emp</div> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;">office.</div> </div> <div style="margin: 0 20px;">Multiple Inheritance</div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px;">Job</div> </div> </div> | 1/2 x 4 | 2 |

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| 9 | (a) (b) (c) (d) | f.open ("a.txt", ios::in); f.close (); if stream INFILE; OUT.open ("stud.dat", ios::out); | $\frac{1}{2} \times 4$ | 2 |
| 10. | | Server Computer that hosts websites/ Software that is installed to deliver webpages or services - always switched on connected to net. (Any 2 points) | 1×2 | 2 |
| 11 | | - bold <s> or <strike> Striking <I> - Italic <big> - big sized. <u> - Underline <small> - Small sized. etc. Any 4 and their purpose. | $\frac{1}{2} \times 4$ | 2 |
| 12 | | Controlling redundancy - Data consistency - Data security - Sharing of data - crash recovery etc. (Any 2 with brief explanation) | 1×2 | 2 |
| 13 | | CHAR - fixed length. VARCHAR - Variable length. | 1×2 | 2 |
| 14 | | CREATE, ALTER, DROP - Any 2 and their purpose. | 1×2 | 2 |
| 15 | | Pattern recognition, perception, motor control, ability to learn, memorise and generalise algorithm modeling of biological neural systems - Any 2 points | 1×2 | 2 |

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| 16 | | Ability to offer courses on variety of subjects - cost much less - online courses - Time and place not a constraint. Any 4 points | $\frac{1}{2} \times 4$ | 2 |
| 17. | | Min(), max(), len(), emp() etc. Any two with brief explanation. | 1×2 | 2 |
| 18 | | n = input ("enter number") if $n \% 2 == 0$: Print "given no. is even" else : Print "Given no is odd" | 2 | 2 |
| 19 | (a) | Orphaned Memory - left unused but not released for further allocation. Memory disappear on every run of program. | 2 | 3 |
| | (b) | forgetting to delete memory | 1 | |
| 20 | (a) | Using function with same name for different purposes. | 1 | |

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| 20 | (b) | void area (int a) { cout << a*a; } | 1x2 | 3 |
| | (ii) | void area (float r) { cout << 3.14 * r * r; } | | |
| 21 | (a) | x - can't inherit, y public, z - protected | 1/2 | 3 |
| | (b) | x - can't inherit, y private, z - private | 1/2 | |
| 22 | | VB script, java script, PHP, ASP, JSP, Any three with brief explanation. | 1x3 | 3 |
| 23 | (a) | Attribute - columns - idno, name, place, age | 1/2 | 3 |
| | (b) | tuple - rows - 3 rows | 1/2 | |
| | (c) | degree - No. of attributes - 4 | 1/2 | |
| | (d) | cardinality - no. of tuples - 3 | 1/2 | |
| | (e) | Domain - Set of values 35, 41, 38 | 1/2 | |
| | (f) | Primary key - for unique identification (IDNO) | 1/2 | |

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| 24 | (a) (b) (c) | <p>CREATE TABLE STUDENT (Regno INT, NAME VARCHAR (20), mark INT);</p> <p>INSERT INTO STUDENT VALUES (1025, 'Amal', 70);</p> <p>SELECT * FROM STUDENT ORDER BY name;</p> | <p>1 1 1</p> <p>} 3</p> | 3 |
| 25 | | <p>Biometrics, Robotics, Computer vision Natural language processing, Automatic Speech Recognition, Bioinformatics, geographic Information Systems. Any 3 applications with explanation.</p> | 1x3 | 3 |
| 26 | | <p>State data centers, Kerala state wide area network, common service centre etc. - with explanation.</p> | 1x3 | 3 |
| 27 | | <p>lower(), upper(), max(), min(), lenc(), join(), isalpha(), islower() etc. (Any 6 with purpose)</p> | $\frac{1}{2} \times 6$ | 3 |

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| 28 | | Program - Include files data members - hr, min functions - read(), print(), operator +() Main function | $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$ 1 1 | 4 |
| 29 | | ios::in, ios::out, ios::app, ios::ate, ios::nocreate, ios::trunc, ios::binary, ios::noreplace Any 4 with purpose | 1x4 | 4 |
| 30 | (a) | role of routers - brief explanation | 2 | 4 |
| | (b) | role of payment gateway - brief explanation | 2 | |
| 31 | (a) | Physical, logical, view | 1 | 4 |
| | (b) | Explanation of each | 1x3 | |
| 32. | | Any 4 datatype with brief explanation. Numeric data type. INT OR INTEGER, DEC OR DECIMAL String data type. CHAR, VARCHAR Date and Time data type. DATE, TIME | 1x4 | 4 |

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