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| **PB-T2/IP(H)QP/1221/B 14-APR-2022** | | | | |
| **PREBOARD EXAMINATION 3 – TERM II (2021-22)** | | | | |
| **Subject: Informatics Practices (Humanities)**  **Grade: XII** | | | **Max. Marks: 35**  **Time: 2 Hrs** | |
| **General Instructions**   1. **The question paper is divided into 3 sections – A, B and C** 2. **Section A, consists of 7 questions (1-7). Each question carries 2 marks.** 3. **Section B, consists of 3 questions (8-10). Each question carries 3 marks.** 4. **Section C, consists of 3 questions( 11-13). Each question carries 4 marks.** 5. **Internal choices have been given for question numbers – 1 , 3,7, 8 and 11.** | | | | | |
|  |  | **SECTION – A**  **Each question carries 2 marks** | |  | |
| 1. |  | Ms. Vineeta Singh, General Manager of Sugar cosmetics recently discovered that the communication between her company’s accounts office and HR office is extremely slow and signals drop quite frequently. These offices are 125 meters away from each other and connected by an Ethernet cable. What kind of network is formed and also explain by clearly differentiating between LAN and MAN on at least on two points?  OR  What is meant by Topology? What are the factors that must be considered before making a choice for the Topology? | | 2 | |
| 2. | **a)** | Which protocol is used to upload files to webserver for creating websites. | | 1 | |
|  | **b)** | Explain the purpose of a router. | | 1 | |
| 3. |  | Help Mr.Rao in Predicting the output of the following:   1. mysql> SELECT LENGTH(instr('Republic Day'," "));; 2. mysql>SELECT MID('information',3,2);   OR  Briefly explain the purpose of the given function  (i) Upper( ) or UCASE( ) (ii) LEFT( ) | | 2 | |
| 4. |  | Briefly explain about Modem and Gateway. | | 2 | |
| 5. |  | Give the output of following commands a) SELECT ROUND(3234.343,1);  b) SELECT ROUND(654.67152) +ROUND(152.4146,2) ; | | 2 | |
| 6. |  | Differentiate between group by and order by clause in SQL. | | 2 | |
| 7. |  | Mr. Kunal, a HR Manager in a multinational company “Star-X world” has created  the following table.  **Relation: INSURANCE**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Company** | **Type** | **Years** | **Name** | **Coverage** | **Dt\_of\_Policy** | | CUF | Car | 15 | Care safe | 80000 | 2008 -08 -09 | | LIT | Life | 40 | InsuredLife policy | 200000 | 2010 -04 -12 | | HC | Hous e | 25 | HouseSecure policy | 550000 | 2015 -03 -10 | | URFree | Life | 35 | Life Insurance | 750000 | 2018 -03 -12 | | Care | Child | 25 | Future Child | 500000 | 2020 -12 -12 |   Predict the output for the following queries.   * 1. Select min (year (Dt\_of\_Policy)) from INSURANCE;   2. Select Company, Name from INSURANCE where month(Dt\_of\_Policy)=03;   OR  Based on the table given above, help Mr. Kunal writing queries for the following task:   1. To display the name of oldest Company and its date of policy. 2. To display the name and date of policy of the August month. | | 2 | |
|  |  | **SECTION – B**  **Each question carries 3 marks** | |  | |
| 8 |  | Consider a string “AS YOU know MORE” 3  Write the queries for the following tasks.   1. Write a command to display “Know”. 2. Write a command to display number of characters in the string. 3. What will be the output of the following queries   Select pow(instr(‘informatics practices’,’atic’),2);  OR  Give the output of the following SQL statements:   1. select lcase(SPORTS) from CLUB; 2. select mod(age,5) from CLUB where SEX='F'; 3. select pow(3,2) from CLUB where SPORTS='KARATE'; | | 3 | |
| 9. |  | Lehar is working using MySQL functions of MySQL. Explain her following:   1. What is the purpose of dayname () function? 2. How it is different from day() function? 3. What is the general format of return type of month() function? | | 3 | |
| 10. |  | Consider an EMP table(Empid, Firstname, lastname). 3  Write the query for each of the following.   1. Display LastName and Firstname from emp table who have "in" in the second or third position in their first names 2. Display the Firstname from emp table that are 5 chars long. 3. Display the 2 letters of firstname starting from third character. | | 3 | |
|  |  | **SECTION – C**  **Each question carries 4 marks** | |  | |
| 11. |  | Kaashvi, a database analyst has created the following table: 4  PERSONS  Write output for the following SQL statements.   * 1. SELECT SurName FROM PERSONS WHERE BasicSalary>= 50000;   2. SELECT SUM (BasicSalary) FROM PERSONS WHERE Gender = ‘”F‟;   3. SELECT Gender, MIN (BasicSalary) FROM PERSONS GROUP BY Gender;   iv) SELECT Gender, COUNT (\*) FROM PERSONS GROUP BY Gender;  OR  How is HAVING clause similar and different from WHERE clause? Explain with the help of examples of each. | |  | |
| 12. |  | Consider the following records in ‘Garment’ table and answer the given questions:  **Table: GARMENT**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **GCODE** | **GNAME** | **SIZE** | **COLOUR** | **PRICE** | | 111 | Tshirt | XL | Red | 1400.00 | | 112 | Jeans | L | Blue | 1600.00 | | 113 | Skirt | M | Black | 1100.00 | | 114 | Jacket | XL | Blue | 4000.00 | | 115 | Trousers | M | Brown | 1500.00 | | 116 | LadiesTop | L | Red | 1200.00 |  1. Display total price of all the garments color wise. 2. Display highest price size wise and colorwise.   iii) Display color and average price of each color whose average price is more than 1400.  iv) Display Gname, Size and Price in decreasing order of Price. | | 4 | |
| 13. |  | Ayurveda Training Educational Institute is setting up its centre in Hyderabad with  four specialised departments for Orthopedics, Neurology and Pediatrics along with an administrative office in separate buildings. The physical distances between these department buildings and the number of computers to be installed in these departments and administrative office as given as follows. You as a network expert have to answer the queries as raised by them in (i) to (iv).  Shortest distances between various locations in metres :   |  |  | | --- | --- | | Administrative Office to Orthopedics Unit | 55 | | Neurology Unit to Administrative Office | 30 | | Orthopedics Unit to Neurology Unit | 70 | | Pediatrics Unit to Neurology Unit | 50 | | Pediatrics Unit to Administrative Office | 40 | | Pediatrics Unit to Orthopedics Unit | 110 |   Number of Computers installed at various locations are as follows :   |  |  | | --- | --- | | Pediatrics Unit | 40 | | Administrative Office | 140 | | Neurology | 50 | | Orthopedics Unit 80 | 80 |  1. Suggest a suitable layout for Networking the computer of all wings 2. Name the wing where the server is to be installed. Justify your answer. 3. Suggest the devices to be installed in each of these buildings for connecting computers installed within the building out of the following:    * + Gateway      + Modem      + Switch 4. Write the name of the type of network out of the following, which will be formed by connecting all the computer systems across the network . | | 4 | |

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