| Name: <br> Enrolment No: |  |  |  |
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| UNIVERSITY OF PETROLEUM AND ENERGY STUDIES Supplementary Examination, December 2023 |  |  |  |
| Course: Business Computing <br> Program: BBA |  | Semester $:$ ITime $: \mathbf{0 3}$ hrs.Max. Marks: 100 |  |
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| Course Code: DSIT1001 |  |  |  |
| Instructions: |  |  |  |
| $\begin{gathered} \text { SECTION A } \\ \text { 10Qx2M=20Marks } \\ \hline \end{gathered}$ |  |  |  |
| S. No. |  | Marks | CO |
| Q1 | A ___ is approximately 1,000 bytes. | 2 | CO3 |
| Q2 | The type of operating system software you use depends on your computers | 2 | CO2 |
| Q3 | You would use $\qquad$ software to create spreadsheets, type documents, and edit photos. | 2 | CO1 |
| Q4 | Data can be number a word, a picture, or a sound. (T/F) | 2 | CO 2 |
| Q5 | Bus is a type of topology. (T/F) | 2 | CO1 |
| Q6 | From which menu you can insert Header and Footer in Microsoft Word? <br> A. Format menu <br> C. Tools menu <br> B. View menu <br> D. Insert menu | 2 | CO2 |
| Q7 | Bit is also called $\qquad$ <br> A. Small <br> C. Byte <br> B. Character <br> D. Binary Digit | 2 | CO1 |
| Q8 | Borders can be applied to $\qquad$ <br> A. Cells <br> C. Paragraph <br> B. Text <br> D. All of these | 2 | CO 2 |
| Q9 | Which network topology requires a central controller or hub? <br> A. Star <br> C. Ring <br> B. Mesh <br> D. Bus | 2 | CO2 |
| Q10 | The following pseudo code is an example of $\qquad$ structure: Get number <br> Get another number <br> If first number is greater than second, then print first number else print second number | 2 | $\mathrm{CO3}$ |


|  | A. Sequence <br> C. Loop <br> B. Decision <br> D. Nested |  |  |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { SECTION B } \\ 4 \mathrm{Q} 5 \mathrm{M}=20 \text { Marks } \end{gathered}$ |  |  |  |
| Q11 | What is computer Software? Explain system software and application software with examples. | 5 | CO1 |
| Q12 | Write a short note on Microsoft PowerPoint. List any three functions. | 5 | CO1 |
| Q13 | Explain network topology with diagram? Differentiate between star and bus topology. | 5 | $\mathrm{CO2}$ |
| Q14 | Discuss the main features of SPSS. | 5 | $\mathrm{CO1}$ |
| $\begin{gathered} \text { SECTION-C } \\ \text { 3Qx10M=30 Marks } \end{gathered}$ |  |  |  |
| Q15 | Compute the hexadecimal equivalent of the given binary numbers: <br> i. 1011010101111 <br> ii. 1111101100001 | 10 | CO 2 |
| Q16 | Discuss the role of an operating system with respect to following functions: <br> a) Process Management <br> b) Security Management | 10 | CO1 |
| Q17 | Compute ciphertext using Vigenere Cipher technique, if the plaintext is "we are discovered save yourself" and key is "deceptive". <br> OR <br> In a public key system, perform encryption and decryption using the RSA algorithm for $\mathrm{p}=7 ; \mathrm{q}=17 ; \mathrm{e}=11 ; \mathrm{M}=11$. | 10 | $\mathrm{CO3}$ |
| $\begin{gathered} \text { SECTION-D } \\ \text { 2Qx15M=30 Marks } \\ \hline \end{gathered}$ |  |  |  |
| Q18 | Suppose that you have trained a robot to carry a box of 40 tapes. If each tape contains 7 gigabits data and the speed of robot is $18 \mathrm{~km} / \mathrm{hour}$, then for what range of distances does robot can have a higher data rate than a transmission line whose data rate is 14 megabytes per second? What would be the effect on the range of distances if: <br> a) The capacity of each tape is doubled. <br> b) The speed of robot is doubled; and <br> c) The data rate of the transmission line is doubled. | 15 | CO 2 |
| Q19 | Design an algorithm which generates odd numbers between 2 and 20 and then prints them in the standard output. It should also print total sum. <br> OR <br> Draw a flowchart for the problem of printing even numbers less than 20. It should also calculate their sum and count. | 15 | $\mathrm{CO3}$ |

