Council for Technical Education and Vocational Training
Office of the Controller of Examinations
Sanothimi, Bhaktapur
Regular/Back Exam-2078/2079, Chaitra/Baishakh

Program: Diploma in Computer Engineering **Full Marks: 80**

Year/ Part: III/II (2018 New) **Pass Marks: 32**

Subject: Multimedia Technology **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Eight Questions.

1. Define multimedia. Explain various multimedia components. [2+8]

2. Define external storage and Graphical processing unit. Describe about graphic and image editing in multimedia. [4+6]

3. Explain about hypertext and hypermedia. What do you mean by typeface and font? [5+5]

4. What is graphics? List and explain various image formats. [2+8]

5. Describe the standards for Video broadcasting. Explain about graphics editing Software. [6+4]

6. What is animation? Write down the guideline for using animation. Explain briefly about morphing. [2+4+4]

7. What is regression testing? Explain about image and Video Compression. [4+6]

8. What are the applications of Photoshop? Differentiate between lossy and lossless compression. [5+5]

9. Write short notes on : (Any Two) [2x5=10]
   a) Bitmap Vs vector
   b) Audio digitization
   c) Application of multimedia

Good Luck !

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Regular/Back Exam-2078/2079, Chaitra/Baishakh
Program: Diploma in Computer Engineering   **Full Marks: 60**
Year/ Part: III/II (2018 New)   **Pass Marks: 24**
Subject: Internet Technology   Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Five Questions.

1. a) Explain the concept of clients and servers in Internet Technology. Explain satellite communication in brief. [6]

    b) What is ISP? How internet is access to mobile and residential area? [6]

2. a) Differentiate between TCP/IP and UDP. [6]

    b) What is IP address? Explain the IPV4 with example. [6]

3. a) What do you mean by Domain Name System? How DNS resolves domain name into IP address? [2+4]

    b) What is SMTP? Explain its types with their protocols. [2+4]

4. a) Define universal internet browsing. What is the need for multiple protocol support? [2+4]

    b) Describe the HTTP message format with diagram. [6]

5. a) Explain Routing Information Protocol and OSPF in brief. [6]

    b) Differentiate between link state and distance vector routing algorithm. [6]

6. Write short notes on : (Any Four) [4x3=12]
    i) Intranet and Extranet
    ii) Network security
    iii) Trending multimedia technology
    iv) Cloud computing
    v) Data center and Data warehousing

Good Luck !

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Program: **Diploma in Computer Engineering**   Full Marks: 80

Year/ Part: **III/II (2018 New)**   Pass Marks: 32

Subject: **Data Mining**   Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Five Questions.

1. a) Define data mining with its functionalities. Mention important application of data mining. [5+3]

    b) What is fact constellation schemas? Explain star schema with its advantages and disadvantages. [8]

2. a) Describe data warehouse. Differentiate data warehouse with DBMS. [3+5]

    b) What are the important characteristics of OLTP Differentiate OLAP with OLTP [3+5]

3. a) What is clustering? Explain linear and Non-linear regression. [8]

    b) Define decision tree. Explain entropy and in formation gain in detail. [8]

4. a) What are the drawbacks of K-mean algorithm? Explain Agglomerative clustering in brief. [8]

    b) Explain DMQL with its syntax and example. [8]

5. a) What do you mean by slice and dice, drill up and drill down in multidimensional data? [8]

    b) Explain advance data mining with its important features. [8]

6. Write short notes on : **(Any Four)**   [4x4=16]
    i) K-me doid algorithm
    ii) Deep Learning
    iii) Fp-growth Algorithm
    iv) MOLAP
    v) DMQL

Good Luck !

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Program: Diploma in Computer Engineering   **Full Marks: 80**

Year/ Part: III/II (2018 New)   **Pass Marks: 32**

Subject: Software Engineering   **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Five Questions.

1. a) Differentiate between following terms: [5+5]
        i) Program Vs software
        ii) Software process and software process model
    b) What are the good characteristics of software? Explain.   [6]

2. a) Describe spiral model with its advantages and disadvantage.   [8]
    b) Explain RAD (Rapid application development) model.   [8]

3. a) Explain the detail task in a software configuration management process with example.   [10]
    b) Define Risk. Explain the process of Risk management.   [6]

4. a) What do you mean by requirement elicitation? Write down various methods of gathering requirement and explain them.   [8]
    b) Why do we use Use-case diagram in object-oriented development? Draw a Use-case diagram for an Online course registration system.   [8]

5. a) Describe about the software design model and design strategies.   [8]
    b) What is software metrics? Explain it with examples.   [2+6]

6. a) What is software quality? Discuss about software reliability model.   [8]
    b) List and explain different types of software testing.   [8]

7. Write short notes on : **(Any Two)**   [2x8=16]
    i) COCOMO model
    ii) Quality assurance
    iii) Verification Vs validation

Good Luck !

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Program: Diploma in Computer Engineering

Full Marks: 80

Year/ Part: III/II (2018 New)

Pass Marks: 32

Subject: E-Commerce (Elective II)

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks.

Attempt Any Eight Questions.

1. Explain e-commerce with an example. What are the categories of e-commerce? Explain in brief [3+7]

2. What is consumer to consumer (C2C) e-commerce? Differentiate between B2B and B2C e-commerce [3+7]

3. What is I-way? Describe the components of I-way. What are the types of software agent? [2+4+4]

4. Define EDI. What are the applications of EDI. Discuss briefly on the security and privacy issues of EDI. [2+4+4]

5. Explain the m-commerce architecture. List out any five advantages of m-commerce. [5+5]

6. Explain digital signature and digital certificate. Describe the security issues in e-commerce [5+5]

7. What is cyber law? describe the importance of cyber law. Write down the characteristics of successful entrepreneur. [2+3+5]

8. What do you mean by online marketing? Explain. Describe the challenges of online marketing. [5+5]

9. Write short notes on : (Any Two) [2x5=10]

    i) VPN

    ii) Online Banking

    iii) Payment gateway

    iv) Firewall

Good Luck !