

**VPM's**  
**DR VN BRIMS, Thane**  
**Programme: PGDM (2016-18)**  
**PGDM Trimester III Examination April 2017**

<b>Subject</b>	<b>MIS</b>		
<b>Roll No.</b>		<b>Marks</b>	<b>60 Marks</b>
<b>Total No. of Questions</b>	<b>7</b>	<b>Duration</b>	<b>3 Hours</b>
<b>Total No. of printed pages</b>	<b>2</b>	<b>Date</b>	<b>22.04.2017</b>

**Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.**

**Q1) 20 Marks (Compulsory)**

Read the following case carefully.

(a) A university registrar's office maintains data about the following entities:

1. courses, including number, title, credits, syllabus, and prerequisites;
2. course offerings, including course number, year, semester, section number, instructor(s), timings, and classroom;
3. students, including student-id, name, and program;
4. Instructors, including identification number, name, department, and title.

Further, the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled.

Construct an E-R diagram for the registrar's office. List all the assumptions that you make about the mapping constraints.

(b) Suppose you are given the following requirements for a simple database for the National Hockey League (NHL):

- the NHL has many teams,
- each team has a name, a city, a coach, a captain, and a set of players,
- each player belongs to only one team,
- each player has a name, a position (such as left wing or goalie), a skill level, and a set of injury records,
- a team captain is also a player,
- a game is played between two teams (referred to as host team and guest team) and has a date (such as May 10th, 2016) and a score (such as 4 to 2).

Construct a clean and concise ER diagram for the NHL database. List your assumptions and clearly indicate the cardinality mappings in your ER diagram.

**Attempt Any FOUR from the Remaining SIX Questions**

**Q2) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) Explain the evolution of I.T. in brief.

b) Explain the use of I.T. in marketing sector and in HR industry, with relevant examples.

c) What is the biggest impact of I.T. on business? Explain with example.

**Q3) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) What are the different types of computer networks? Explain in brief.

b) What is the difference between LAN, MAN and WAN?

c) What is WLAN? Explain with relevant example.

**Q4) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) What do you mean by a Network Topology? Explain Mesh & Hybrid Topology in brief.

b) What are the advantages and threats to a computer network?

c) Explain Dial-Up and Satellite connections.

**Q5) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

a) What is a database? Why do you need a database? Explain with an example.

- b) Explain DBMS and its basic architecture.
- c) List down 5 advantages and 5 disadvantages of using Spreadsheet against a database.

**Q6) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

- a) What is difference between e-business and e-commerce? Explain with example.
- b) What is a Data Warehouse and what are its benefits? Draw its architecture.
- c) Explain types of e-commerce, with example for each.

**Q7) Any two from (a) or (b) or (c) ————— (5x2) = 10 Marks**

- a) Write an algorithm to find the square of a number.
- b) Draw a flowchart to find the area of a rectangle.
- c) Draw a flowchart to check if the entered number is less than 50.