ALLAMA IQBAL OPEN UNIVERSITY

Level:	Intermediate	**Semester:** Autumn 2009
Paper:	Understanding Math, Stat & Computer (359)	**Maximum Marks:** 100
Time Allowed:	03 Hours	**Pass Marks:** 40

Note: ATTEMPT ANY FIVE QUESTIONS. ALL CARRY EQUAL MARKS.
QUESTION NO (1) IS COMPULSORY.

Q.1		Fill in the blanks.	20
	i)	The numbers, which include decimal point or base 10, are _____.	
	ii)	The problems in which if one figure increases and second figure also increases then it will be called _____.	
	iii)	The standard form of quadratic equation is _____.	
	iv)	Surface area of a cylinder can be evaluated by using formula _____.	
	v)	Probability is the _____ between favourable cases and total out comes.	
	vi)	The data can also be presented with the help of _____.	
	vii)	The middle value in the arranged data is called _____.	
	viii)	_____ is the difference of the largest and smallest value in the data.	
	ix)	In _____ the speed ranges from 4 MHZ to 120 MHZ.	
	x)	The basic purpose of using _____ is to convert the data into information.	
Q.2	i.	Differentiate between Linear equation and quadratic equation. Give suitable example in each case.	10
	ii.	a) The ratio of distance in inches shown on a map to actual distance in miles is 1 to 50. If the map distance between two cities is 9 inches. How many miles is it from one city t the other? b) The ratio of miles driven to gallons of gas used was 55 to 4. How far was it possible to derive on a 20 gallons tank of gas.	10
Q.3	i.	Discuss the most popular methods of solving the linear equations. Give suitable examples.	10
	ii.	The area of a trapezoid in 15 square meters. The altitude is 1/3 of the lower base and the lower base is 8 meters longer than the upper base. Write down the statement in equation form for the problem and determine the lengths of lower and upper base.	10
Q.4	i.	Find the diameter of the circle if the circumference of the circle is 3 cm. Also find the area of the circle.	10
	ii.	Find the surface area and volume of the water tank if its diameter is 6 meters and the height of the tank is also 6 meters.	10
Q.5	i.	What do you mean by statistics? Indicate the situations, which are related to descriptive and inferential statistics.	10
	ii.	Find the probability in each of the following case: a) A head appears in tossing a fair coin, b) A 5 appears in rolling a six-faced cubical dice.	10
Q.6	i.	What do you understand by dispersion and what is its importance in daily life? Give suitable example to support your answer.	10
	ii.	The prices of 20 books are given below 525, 280, 230, 250, 475, 280, 600, 1050, 540, 230, 255, 535, 650, 280, 640, 230, 280, 540, 280, 275. You are asked to find the mean, median and mode of the prices. How will you find.	10
Q.7	i.	Differentiate between Hardware and Software. How the Hardware components of computer work together? Explain.	10
	ii.	How do you boot your computer? Explain.	10
Q.8	i.	Write a note on computer languages and programming. Also explain the applications of some important programming languages.	10
	ii.	Write a comprehensive note on "computer in science and technology".	10

GOOD LUCK
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