The University of Jordan

The University of Jordan Mathematics Department Statistics	s 131 (First Ex	(am)	3/2014	5	
Name:	<u>, 101 (1150 20</u>	Number:	0/2010	-	
Instructor's name: Section (day and time): For questions (1-6): The age distribution for a random sample of 20 school students is					
Age (X) in years	10	12	15	18	
Frequency	2	6	7	5	
 The percentage of students having a) 20% b) 24% 	g age above 15 c) 25%	years is	d) 30)%	
2. The range of the 20 ages in this sa) 8 yearsb) 18	ample is c) 28		d) 35	5	
 3. The 50th percentile of this sample a) 11 years b) 15 	c (i.e. the mea c) 13.5	lian age) is	d) 25		
4. The modal age (i.e. the mode) ofa) 12 years only b) 15 only	this sample is c) 12 and	s I 15	d) no	mode ex	xists
5. The mean (i.e. the average) age (a) 11 years b) 13.5	of these 20 stu c) 14.	dents is .35	d) 15		
6. If $\sum X^2 = 4259$ for all 20 ages in the sample, then the standard deviation S= a) 0.765 b) 2.72 c) 7.4 d) 140.55					
7. Grades of 200 students in a Statistics exam had the following summary : Min=29, $Q_1=42$, $Q_2=70$, $Q_3=75$ and Max=79. Then the number of grades between 42 and 70 is a) 25 b) 20 c) 50 d) 100				n=29, nd 70 is	
8. On an exam given to 5 students, the mean grade was 78. The grades for 4 of them were 87, 81, 76, and 53, then the 5 th grade is a) 65 and b) 71 and b) 93 and b) 99					
9. The IQ (i.e. Intelligence Quotient) for people has Bell-Shaped distribution with mean 100 and SD=15. Then the percentage of people with IQ \leq 115 is a) 16% b) 84% c) 68% d) 95%					
10. For a class of 30 students (20 Males and 10 Females) the mean grade =75 and SD=8.The 20 males had mean grade 70 and SD=4,then the mean grade for the 10 females in this class is					
a) 85 b) 80	c) 75		d) 7	0	
11. In an exam, a student had grade 85 which is 2 SD above the mean. If SD=4, then the mean grade=					

$a_1 a_2 a_3 a_5 a_1 a_2 a_3 a_4 a_5 a_1 a_1 a_1 a_1 a_1 a_1 a_1 a_1 a_1 a_1$	l) 85	b) 87	c) 81	d) 77
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12. The mean and standard deviation of a set of data are 70 and 8, respectively.					
Applying Chebyshev's rule, the interval that contains at least (5/9) of the data within					
k standard deviations of its mean is					
a) [62,78]	b) [58,82]	c) [54,86]	d) [58,78]		

13. From a group of 3 boys and 2 girls, three are selected at random without replacement. Then the probability that the number of boys is greater than the number of girls is a)7/10 b)6/10 c)1/10 d) zero

14. A die is rolled once. The probability that a number greater than 2 or an evennumber appears isa) 5/6b) 1/2c) 1/3d) 2/3

15. In a rando	om experiment A and	d B are two events such t	hat $P(A) = 2/5$ and
$P(B \tilde{A})=1/3, 1$	then $P(A B) =$		
a) 3/10	b) 2/3	c) 1/3	d) 1/2

16. BoxI has 4 black and 1 white balls and BoxII has 1 black and 4 white balls. A ball is randomly selected from BoxI. If its color is white then a second ball is selected from BoxI while if its color is black then a ball is selected from BoxII. Now if the the second ball drawn is black, then the probability that it was drawn from BoxI is a) 9/25 b) 5/25 c) 1/25 d) 5/9

17. If the probability that student X passes a Statistics exam is .8 and the probability that student Y passes this exam is 0.7, then the probability that only one of them passes this exam (assuming independence) is a) 0.56 b) 0.24 c) 0.14 d) 0.38

18. The sample space of a random experiment is $S = \{e_1, e_2, e_3, e_4, e_5\}$ where all 5 outcomes are equally likely. If event $A = \{e_1, e_2, e_3\}$ and event $B = \{e_2, e_3, e_4, e_5\}$, then $P(\overline{A} \cap B) =$ a) 0.2 b) 0.30 c) 0.4 d) 0.5

19. A box contains 5 identical balls numbered 1,2,3,4,5. Two balls are drawn successively without replacement where a 2-digit number is constructed from these two numbers. The probability that the 2-digit number is even is

a) 0.3
b) 0.4
c) 0.5
d) 0.2

20. A shelf in a student room has 4 different Math books, 4 Chemistry book and 2 Biology books. Two books are randomly selected together. Then the probability Math and Biology books are selected is

a) 1/2 b)2	2/5	c) 3/10	d) 8/45
Answers			
1.C 2.A 3.B 4.B 5 9.B 10.A 11.D 12	5.C 6.B 7.C 8.C .B 13.A 14.A	END OF EXAM	
15.Not enough infor 17.D 18.C 19.B 20	mation 16.D 0.D		