KEMENTERIAN PENDIDIKAN MALAYSIA

POLITEKNIK MALAYSIA

JABATAN MATEMATIK, SAINS DAN KOMPUTER

COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS		
COURSEWORK ASSESSMENT		QUIZ 4		
SESSION		DECEMBER 2018		
DURATION	15 MINS	CLO1	10 MARKS	8
		CLO2		
		CLO3		
TOTAL MARKS		10 MARKS		

NAME	IVY CHELSY
REGISTRATION NO.	050DT18F1001
PROGRAMME/ SECTION	DDT2A

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

$5 \times 8 \times 6 = 240$ outfits she can wear.

(2)

Question 2

$nP_r = \frac{n!}{(n-r)!}$

$^{10}P_r = \frac{10!}{5!4!1!}$

$720 = 725760$ ways

Question 3

$^8C_3 \times {}^5C_4 \times {}^1C_1$

$= 1206$ ways

(3)

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 4	
		SESSION		DECEMBER 2018	
JABATAN MATEMATIK, SAINS DAN KOMPUTER		DURATION	15 MINS	CLO1	10 MARKS
NAME	FRANCISCA			CLO2	
REGISTRATION NO.	05DDT18F1020			CLO3	
PROGRAMME/ SECTION	DDT2A	TOTAL MARKS		10 MARKS	

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

5 skirts 6 pairs of shoes

8 shirts

$5 \times 8 \times 6 = 240$ ✓ (2)

Question 2

-10 games - 5 wins

- 4 losses

- 1 tie

$10C_5 \times 5C_4 \times 1C_1 = 1260$ ✓ (3)

Question 3

- 8 people
- 3 order chicken
- 4 order steak
- 1 order lobster

$$= \frac{n!}{n_1! n_2! n_3!}$$

$$= \frac{8!}{3!\,4!\,1!}$$

$$= 280$$

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 4	
		SESSION		DECEMBER 2018	
NAME	DIANA TRIN AK SUDOK	DURATION	15 MINS	CLO1	10 MARKS
REGISTRATION NO.	05DDT18F1060			CLO2	
PROGRAMME/ SECTION	DDT8A	TOTAL MARKS		CLO3	10 MARKS

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

10 games — 5 wins, 4 losses, 1 tie

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

$5 \times 8 \times 6 = 240$

5 skirts
8 shirts
6 pair of shoes

2

Question 2

~~$10 C_5 \times$~~

$10C_5 \times 5C_4 \times 1C_1 = 1260$

3

Question 3

8 people <
- 3 order chicken
- 4 order steak
- 1 order lobster

$$= \frac{8!}{3!4!1!}$$

$$= 280$$

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 4	
		SESSION		DECEMBER 2018	
JABATAN MATEMATIK, SAINS DAN KOMPUTER		DURATION	15 MINS	CLO1	10 MARKS
NAME	CARL ISAAC AK KELBIN			CLO2	
REGISTRATION NO.	05DDT18F1077			CLO3	
PROGRAMME/ SECTION	DDT2A	TOTAL MARKS		10 MARKS	

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

Skirt = 5

Shirts = 8

Shoes = 6

= Skirt x shirts x shoes

= 5 x 8 x 6

= 240

Question 2

1 team = 10 games

$\frac{10!}{5! \times 4! \times 1!}$

= 1260

win	loses	tie	Number of ways
5	4	1	$^{10}C_5 \times {}^5C_4 \times {}^1C_1 = 1260$

Question 3

8 people = 3 chicken, 4 steak, 1 lobster

$= {}^{8}C_{3} \times {}^{5}C_{4} \times {}^{1}C_{1}$

$= 280$ ways

✓ 3

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 4	
		SESSION		DECEMBER 2018	
		DURATION	15 MINS	CLO1	10 MARKS
NAME	Mohd Hazwan B. Hashim			CLO2	10
REGISTRATION NO.	05DDT18F1068			CLO3	
PROGRAMME/ SECTION	DDT 2A	TOTAL MARKS		10 MARKS	

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

$= 5P_1 \times 8P_1 \times 6P_1$

$= 5 \times 8 \times 6$

$= 240$ ✓ (2)

Question 2

$= 10C_5 \times 5C_4 \times 1C_1$

$= 252 \times 5 \times 1$

$= 1260$ ✓ (3)

Question 3

$= {}^{8}C_{3} \times {}^{5}C_{4} \times {}^{1}C_{1}$

$= 56 \times 5 \times 1$

$= 280$

✓

(3)

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
		COURSEWORK ASSESSMENT		QUIZ 4	
		SESSION		DECEMBER 2018	
NAME	NED DECN BARANTAU	DURATION	15 MINS	CLO1	10 MARKS
REGISTRATION NO.	05DDT17F2018			CLO2	
PROGRAMME/ SECTION	JTMK/DDT2A	TOTAL MARKS		CLO3	10 MARKS

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

$= 5 \times 8 \times 6$

$= 240$ ✗ (2)

Question 2

W L T

$10 P_5$ $5 P_4$ $1 P_1$

$\frac{10!}{(10-5)!} \times \frac{5!}{(5-4)!} \times \frac{1!}{(1-1)!}$

W L T

$10 \quad 10 \quad 10$

$C_5 \quad C_4$

$= {}_{10}C_5 \; {}_5C_4 \; {}_1C_1$

$= 252 \times 5 \times 1$

$= 1260$ ✗ (3) (3)

KEMENTERIAN PENDIDIKAN MALAYSIA — POLITEKNIK MALAYSIA JABATAN MATEMATIK, SAINS DAN KOMPUTER		COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS
		COURSEWORK ASSESSMENT		QUIZ 4
		SESSION		DECEMBER 2018
		DURATION	15 MINS	CLO1 10 MARKS
				CLO2
				CLO3
NAME	Muhd Hafiz Thzig			
REGISTRATION NO.	05DDT18F1140			
PROGRAMME/ SECTION	DDT2A	TOTAL MARKS		10 MARKS

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1

$5! \times 8! \times 6!$

$\frac{240}{3} = 80$

Question 2

$\frac{10!}{5!4!1!} = 1260$

Question 3

${}_8P_3 = 120$

${}_8P_4 = 24$

${}_8P_1 = 5040$

$= 5184$

KEMENTERIAN PENDIDIKAN MALAYSIA

POLITEKNIK MALAYSIA

JABATAN MATEMATIK, SAINS DAN KOMPUTER

NAME	Frederick Jack	COURSE CODE/ COURSE NAME		DBM2033 DISCRETE MATHEMATICS	
REGISTRATION NO.	050DT18F1112	COURSEWORK ASSESSMENT		QUIZ 4	
PROGRAMME/ SECTION	DDT2A	SESSION		DECEMBER 2018	
		DURATION	15 MINS	CLO1	10 MARKS
				CLO2	2
				CLO3	
		TOTAL MARKS		10 MARKS	

Instructions

- Answer ALL questions. Write your answers in the spaces provided.
- Show your working to get marks. You may use a non-programmable scientific calculator.

Question 1

CLO2, C2 [2 marks]

If a girl has 5 skirts, 8 shirts, and 6 pairs of shoes, how many outfits can she wear?

Question 2

CLO2, C2 [3 marks]

A college football team plays 10 games during the season. In how many ways can it end the season with 5 wins, 4 losses, and 1 tie?

Question 3

CLO2, C2 [5 marks]

If eight people eat dinner together, in how many different ways may 3 order chicken, 4 order steak and 1 order lobster?

Question 1.

$5 \times 8 \times 6$

$= 240$ outfits

2

Question 2.

$\frac{10!}{5!\,4!\,1!}$

$= 1260$ ✓

3

Question 3.

8 people
3 chicken
4 steak
1 lobster

$\frac{8!}{(8-3)!}$

$= 336$ ways order chicken

$\frac{8!}{(8-4)!}$

$= 1680$ ways order steak

$\frac{8!}{(8-1)!}$

$= 8$ ways order lobster

5

total ways
$= 2024$ ways

NO: Monday DATE: 11.3.16

(Q1) $5 \times 8 \times 6 = 240$

(Q2) $\frac{10!}{5!\,4!\,1!}$

$= 1260$

(Q3) 8 people

5 order chicken

4 order steak

1 order lobster

- $\frac{8!}{(8-5)!}$

$= 336$ order chicken

- $\frac{8!}{(8-4)!}$

$= 1680$ order steak

- $\frac{8!}{(8-1)!}$

$= 8$ order lobster