

2017 CALCULATION EXAM ANSWERS

SECTION 1 - Total 30 marks

Q1 Calculate the House cusps to within a degree for the following two sets of data: **10 marks**

- | | | |
|-----|--------------------|-----------------------------|
| (a) | 17 February 1978 | 9.23 am |
| | Coffs Harbour NSW | 30S18 153E08 |
| | Standard Time Zone | -10 hours East of Greenwich |
| | Daylight Savings | YES (-1 hour) |

ANSWER

Closest Local Sidereal Time

- using **The Michelsen Book of Tables** (Placidus) = 06hrs 21min 45sec
- using **The Placidus Book of Tables for Southern Latitudes** the answer is 12 hours different = 18h 21min 46sec

- Hand Calculations: _____ Computer Calculations:

MC	= 04 Capricorn 59	4 Capricorn 59
11	= 06 Aquarius 47	06 Aquarius 49
12	= 07 Pisces 13	07 Pisces 13
ASC	= 04 Aries 43	04 Aries 43
2	= 02 Taurus 43	02 Taurus 43
3	= 03 Gemini 12	03 Gemini 12

(b) 20 November 1969 8.22 pm
 Berlin, Germany 52N30 13E22
 Standard Time Zone - 1 hour East of Greenwich
 Daylight Savings NO

10 marks

ANSWER

Closest Local Sidereal Time

- using **The Michelsen Book of Tables** = 0hrs 13min 59 seconds
- **using The Placidus Book of Tables for Southern Latitudes** the answer is 12 hours different = 12h 13min 59sec

Hand Calculations:

Computer Calculations

MC	= 03 Aries 49	03 Aries 48
11	= 13 Taurus 07	13 Taurus 09
12	= 26 Gemini 41	26 Gemini 40
ASC	= 29 Cancer 55	29 Cancer 55
2	= 15 Leo 47	15 Leo 46
3	= 05 Virgo 51	05 Virgo 50

Q2

Calculate the longitudinal positions of the following planets to within 30 minutes of zodiacal longitude. All data below is in GMT.

10 marks

1. Sun: 11 September 2001 3.43 pm
2. Moon 24 April 1987 2.20 am
3. Mercury: 07 January 1970 11.30 pm
4. Venus: 15 July 1950 8.50 pm
5. Mars: 21 February 1953 5.20 am

ANSWER

Hand Calculations

Computer Calculations

1. Sun	18 Virgo 58	18 Virgo 57
2. Moon	14 Pisces 32	14 Pisces 31
3. Mercury	28 Capricorn 42 R	28 Capricorn 42 R
4. Venus	21 Gemini 47	21 Gemini 47
5. Mars	09 Aries 57	09 Aries 56

END OF SECTION 1

SECTION 2 - ANSWERS

Q1 : Using the aspect grid supplied, find only the following aspects, using the stated maximum orbs. Include the 10 Planets plus the Nodes only.

Conjunction	8 degree orb.
Square	8 degree orb.
Opposition	8 degree orb.
Trine	8 degree orb.
Sextile	6 degree orb.
Quincunx	4 degree orb.

12 marks

Note: There are 24 aspects each worth 2 marks.

Donald Trump
Male Chart
 14 Jun 1946, Fri
 10:54 am EDT +4:00
 Queens, New York
 40°N43' 073"W52'
Geocentric
Tropical
Placidus
True Node

Aspect Grid

	☾	☀	♃	♄	♅	♆	♁	♂	♁	♁	♁	
☾		// 0A03							// 0S14	// 0A39	// 0S03	// 0S03
☀	♂ 1A43		// 0S21						// 0S18	// 0A35	// 0S07	// 0S07
♃												
♄									// 0S07		// 0S18	// 0S18
♅	♂ 5A34	♂ 3A50										
♆	♂ 3S45	♂ 5S28										
♁	♂ 2A36		♂ 1S55	♂ 6S21								
♂	♂ 3S18	♂ 5S02		♂ 0S26					// 0A54	// 0A10	// 0A10	
♁			♂ 3S01									
♁									♂ 4S12		// 0A43	// 0A43
♁	♂ 0S23	♂ 2S07		♂ 5S58	♂ 3S21		♂ 2A54					
♁	♂ 0S23	♂ 2S07		♂ 5S58	♂ 3S21	♂ 3S00	♂ 2A54					

Q2: Using Planets, Nodes and Midheaven (MC), name an aspect pattern formed and the planets/points involved.

YOD : Using a 4 degree only : Moon/South Node inconjunct MC & Saturn;
 Using a 6 degree orb only : Saturn sextile MC.

AND/ OR

BOOMERANG (part of YOD) : Sun opp Moon; Moon/South Node inconjunct Saturn & MC;
 Saturn sextile MC

2 marks

Q3: Which planet is in detriment ?

Saturn in Cancer

1 mark

Q4: Which planet is closest to an angle?

1 mark

Mars

Q5: Which houses and signs are intercepted?

2 marks

5th & 11th Houses with Cancer/Capricorn

Q6: Which house(s) does Venus rule?

2 marks

3rd & 10th

Q7: What is the short arc midpoint of the Sun and Jupiter?

3 marks

Sun 22 Gemini 55 = 82 55 (in absolute longitude conversion)

Jupiter 17 Libra 27 = 197 27

Add = 280 22

Divide by 2 = 140 11

Convert back = **20 degrees Leo 11 minutes**

Q8 : Calculate the Vertex to the nearest degree.

Using The Michelsen Book of Tables (Placidus) :

**** Procedure for Northern Latitudes :**

Step 1 : Take **Latitude of Birth** place : 40 degrees 43 North :

Calculate Co-latitude by taking 90° 00

- 40° 43

49° 17

*Round down to 49 degrees (to look up in Table of Houses)

Step 2 : Look up IC of chart - DT has 24 ♎ 18 on his 4th house cusp.

Go to 'Placidus Table of Houses' and look this up in the MC (24 ♎ 22)

Run your finger down the ASC column down to Latitude 49°

you see . . . **23 ♋ 18** = Vx (Vertex)

* (Do not reverse this answer for Northern latitudes)

3 marks

Q9: Which two planets form the most exact major aspect?

1 mark

Jupiter trine Uranus (0 degrees 26 min)

Q 10 : Using the diurnal formula, calculate the Part of Fortune to the nearest Degree.

3 marks

Formula: ASC + Moon - Sun

ASC = 29 Leo 55 = 149 degrees 55

+ Moon = 21 Sag 12 = 261 degrees 12

411 degrees 07

Minus - Sun 22 Gem 55 = 82 degrees 55

= 328 degrees 12

Convert back = **28 Aquarius 12**

Solar Fire = 28 Aquarius 12

END OF SECTION 2

SECTION 3 - 40 MARKS

Please note: There may be a slight difference in answers in this section depending on which Ephemerides is used. The examiners will allow for this.

ACD calculation for Donald Trump : 30 Oct 1945

14 June 1946 10.45 am, Queens, New York , STZ + 4 hours

Step 1: Find **GMT of birth** (subtract or add Standard Time Zone difference)

Time of birth	10.54 am	on 14 June 1946
Add STZ	+ 04.00	
GMT	<u>14.54</u>	on 14 June 1946

Step 2: **Subtract** GMT from 24.00 hours.

24.00 – 14.54 = **09.06**

Step 3: **Add** this answer to **SIDEREAL TIME** in Ephemeris for GMT date of birth :

Sid Time :	17 26 45	on 14/6/46
	+ <u>09 06 00</u>	
	26 32 45	

Step 4: If this answer is greater than 24 hours - subtract 24 from answer.

	26 32 45
-	<u>24 00 00</u>
	02 32 45

Step 5: **Find this time listed in Ephemeris** as a **SIDEREAL TIME** - and check the **date of this Sid. Time = ACD** (search backwards in Ephemeris!)

Midnight Ephemeris **30 October 1945** (2h 31m 47s)

Noon Ephemeris 30 April 1946 (2h 31m 18s)

Step 6: If ACD (date) falls in year before DOB (Date of Birth) - Progressions/ Solar Arc Directions will be for that date **'THE YEAR BEFORE'**.

Q1 Calculate a [12] monthly Secondary Progressed Moon table for Donald Trump for 2017, starting from January 30th to the nearest 30 minutes of arc.

6 marks

ACD date using midnight ephemeris is : 30 October 1945

Count 71 days from GMT DOB (14/6/1946) = 24 August 1946

Checking midnight ephemeris Moon position on this day is 22 **Cancer 30 minutes 53 seconds** – place this next to ACD/ 30 October 2016

Monthly Adjustment using Michelsen 24 hour Moon position on 24.8.1946

Midnight position 22 Cancer 30min 53sec

Midnight position next day - 06 Leo 42 min 59 sec

14 degrees 12min 06 sec

Divide by 12 for monthly rate of travel = **1 degree 11 minutes from 30/10/2016 – 30/10/2017**

So add 1 degree 11 minutes from 30 Jan 2017 until 30 October 2017.

For last two months of 2017 at 30 Nov & 30 Dec add 1 degree 10 min 18 sec (formula below) :

Midnight adjustment using Michelsen 24 hr Moon position on 25th & 26th Aug 1946

Midnight position 26/8 20 Leo 47 19

Midnight position 25/8 06 Leo 42 59

14 04 20 divide by 12 = **1 degree 10 min 18 sec**

So add 1 degree 10 min 18 sec from ACD date 30 Oct 2017 – 30 Dec 2017

Hand Calculations (rounding up seconds to minutes)

30 Jan 2017 26 Cancer 04

30 Feb 2017 27 Cancer 15

30 March 2017	28 Cancer 26
30 April 2017	29 Cancer 37
30 May 2017	0 Leo 48
30 June 2017	1 Leo 59
30 July 2017	3 Leo 10
30 August 2017	4 Leo 21
30 Sept 2017	5 Leo 32
30 Oct 2017 (ACD)	6 Leo 43
30 Nov 2017	7 Leo 53
30 Dec 2017	9 Leo 04

Q2 **How old was Donald when he had his 1st Progressed New Moon phase?**
What degree and sign? **4 marks**

Using GMT date 14 June 1946 at 0 - count down in ephemeris until you reach 1st Prog New Moon = on 29 June 46 (15 days) . In Michelson 20th century ephemerides, the **Sun is at 06 degrees Cancer & Moon moves into 6 degrees Cancer on that day.**

Age of 1st progressed New Moon = 15 years (minus 1 year because ACD is Oct 1945 = therefore, = 14 years is answer.

Q3 **At what age will Donald's Progressed Sun move into sign of Virgo?**

3 marks

Using GMT date 14 June 1946 at 0 count days in ephemeris go down until you reach Prog Sun into Virgo on 23 August 1946 = 70 days (years) (minus 1 year ACD is year before October 1945) = **69 years.** (Astro data box in Michelson 20th century ephemerides under 'planet ingress' in left hand corner, states 23 August.) **Will accept 70 years as well** (computer has Prog Sun into Virgo in August 2016 after his birthday that year.)

Q4 How old was Donald when his Solar Arc Venus conjuncted his Natal Ascendant?

4 marks

Subtract Ascendant 29 Leo 55 = 149 55

Venus 25 Can 44 = 115 44

SA Difference = 34 11

Sun = 22 Gem 55 = 82 55

ADD SA Diff 34 11

= 117 06 = **27 Cancer 06**

Go down ephemeris until Sun reaches 27 Can 06 (during the 24 hour day of 20/7/1946) = 36 days = 36 progressed years

ACD adjustment (Oct 1945) subtract 1 year = 35 years (before 36th birthday).

Q5 During 2017 and 2018 transiting Uranus trines Donald's Natal Mars. List the exact GMT dates.

3 marks

27/5/2017; 13 or 14/10/2017; 18/3/2018

Q6 List the exact GMT dates in 2017 and 2018 when Transiting Uranus squares Donald's Venus.

3 marks

6 or 7/5/2017; 8/11/2017 ; 24 or 25/2/2018

Q7 Using a one degree orb, both applying and separating, list the GMT period(s) when Donald will experience his 6th Jupiter Return. 4 marks

28/11/2016 – 11/12/2016

6/4/2017 – 22/4/2017 Rx

27/7/2017 – 11/8/2017

Q8 List the exact GMT dates and zodiacal degrees of all solar and lunar eclipses for 2018. 4 marks

Solar Eclipses

Lunar Eclipses

15/2/2018 27 Aquarius 08

31/1/2018 11 Leo 37

13/7/2018 20 Cancer 41

27/7/2018 4 Aquarius 45

11/8/2018 18 Leo 42

Q9 What is the exact (GMT) period when Venus will be retrograde during 2018?

3 marks

5/10/2018 – 15th or 16/11/2018 (some ephemerides can be different)

Q 10 Calculate the Adjusted Calculation Date for the following birth data:

6 marks

22 November 1995, 6,55 am

Melbourne, Victoria

Standard Time Zone -10 hours (daylight savings in effect)

Step 1: Find **GMT of birth** (subtract or add Standard Time Zone difference)

06 55 - 01 00 (daylight) 05 55 - 10 00
= 05 55 = 07 55 pm (**19 55**) **on 21 Nov (day before)**

Step 2: **Subtract** GMT from 24.00 hours.

24 00
- 19 55 = **04 05**

Step 3: **Add** this answer to Midnight SIDEREAL TIME in Ephemeris for GMT date of birth :

03 58 06
+ 04 05 00
08 03 06

Step 4: If this answer is greater than 24 hours - subtract 24 from answer.

N/A

Step 5: **Find this time (Step 3) listed in Ephemeris** as a SIDEREAL TIME - and check the **date of this Sid. Time = ACD (search backwards in Ephemeris!)**

= 21 January (1995) using Michelsen 20th century ephemerides.

On 22nd Jan Sid. Time is already at 08 03 31 so go day before.

Midday ephemeris : take 8h 03m 06s & look this up in Noon ephemeris starting 21 Nov 1995 – going backwards = 23 July 1995