

# CALCULATION EXAM 2018

## SECTION 1 - Total 30 marks

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

- |     |                     |                             |
|-----|---------------------|-----------------------------|
| (a) | 16 January 2013     | 8.44 pm                     |
|     | Melbourne, Victoria | 37 S 49, 144 E 58           |
|     | Standard Time Zone  | -10 hours east of Greenwich |
|     | Daylight Savings    | YES -1 hour                 |

Local sidereal time for Southern Table of Houses = **3 hours 7 minutes 59 seconds** [hand calculation], **3 hours 7 minutes 50 seconds** [Solar Fire calculation]

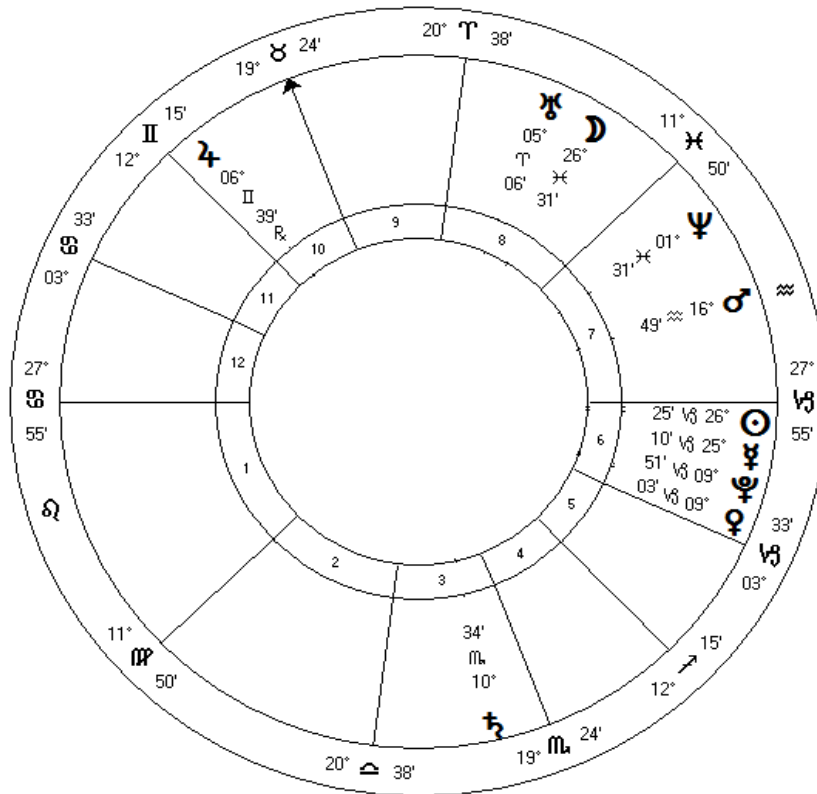
**10 marks**

Sidereal time for Northern Table of Houses [add 12 hours] = **15 hours 7 minutes 59 seconds**

Hand Calculated House Cusps for closest sidereal time of **3 hours 8 minutes / 15 hours 7 minutes** for **latitude 38** [not interpolated]

MC = 19 Taurus 27	IC = 19 Scorpio 27
11 <sup>th</sup> = 12 Gemini 16	5 <sup>th</sup> = 12 Sag 16
12 <sup>th</sup> = 3 Cancer 31	6 <sup>th</sup> = 3 Cap 31
ASC = 27 Cancer 50	DESC = 27 Cap 50
2 <sup>nd</sup> = 11 Virgo 51	8 <sup>th</sup> = 11 Pisces 51
3 <sup>rd</sup> = 20 Libra 42	9 <sup>th</sup> = 20 Aries 42

**Q1 Melbourne**  
**Natal Chart**  
 16 Jan 2018, Wed  
 8:44 pm AEDT -11:00  
 Melbourne, AUSTR  
 37°S49' 144°E58'  
*Geocentric*  
*Tropical*  
*Placidus*  
*True Node*



(b)	23 October 1988	6.30am
	Paris, France	48 N 52, 2 E 20
	Standard Time Zone	- 1 hour east of Greenwich
	Daylight Savings	NO

Sidereal time for Southern Table of Houses = **19 hours 46 minutes 45 seconds**  
 [hand calculation]

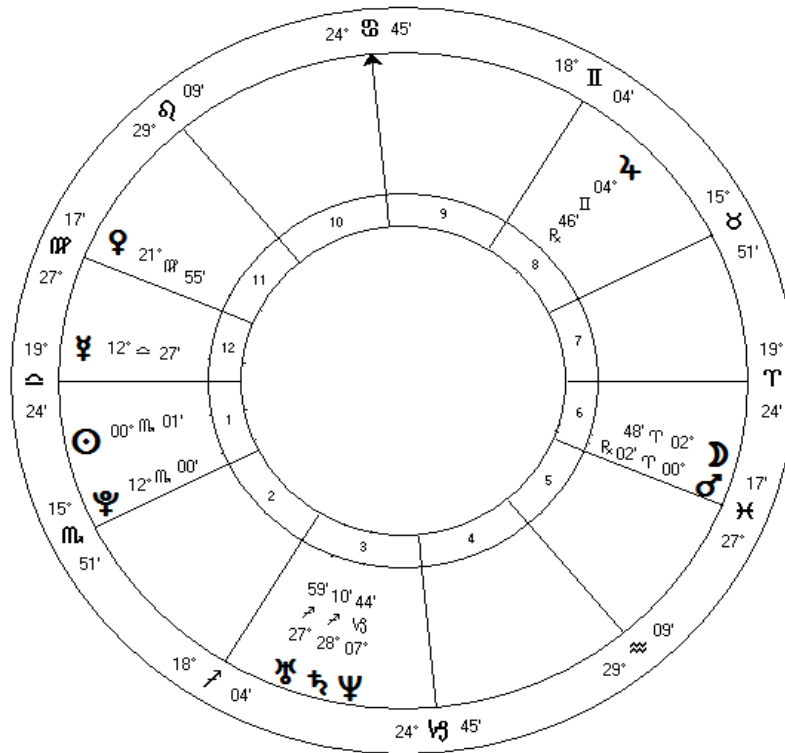
Local sidereal time for Northern Table of Houses = **7 hours 46 minutes 45 seconds**  
 [hand calculation], **7 hours 46 minutes 44 seconds** [Solar Fire]

10 marks

Hand Calculated House Cusps for closest sidereal time of **19 hours 48 minutes**  
 / **7 hours 48** for **latitude 49** [not interpolated] Interpolated

MC = 25 Cancer 03	IC = 25 Cap 03	MC=24 Cancer 47
11 <sup>th</sup> = 29 Leo 28	5 <sup>th</sup> = 29 Aquarius 28	11 <sup>th</sup> =29 Leo 13
12 <sup>th</sup> = 27 Virgo 23	6 <sup>th</sup> = 27 Pisces 23	12 <sup>th</sup> =27 Virgo 19
ASC = 19 Libra 36	DESC = 19 Aries 36	Asc = 19 Libra 24
2 <sup>nd</sup> = 16 Scorpio 02	8 <sup>th</sup> = 16 Taurus 02	2 <sup>nd</sup> = 15 Scorp 50
3 <sup>rd</sup> = 18 Sag 19	9 <sup>th</sup> = 18 Gemini 19	3 <sup>rd</sup> = 18 Sag 04

**Q1 Paris**  
**Natal Chart**  
 23 Oct 1988, Sun  
 6:30 am CET -1:00  
 Paris, France  
 48°N52' 002"E20'  
 Geocentric  
 Tropical  
 Placidus  
 True Node



Q2

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

1. Sun:                      16 October 1986                      2.30 pm  
    Hand calculation = 22 Libra 55  
    Solar Fire = 22 Libra 55
2. Moon                      5 March 1954                      4.20 am  
    Hand calculation = 14 Pisces 45  
    Solar Fire = 14 Pisces 43
3. Mercury:                      16 Dec 2006                      11.40 am  
    Hand calculation = 12 Sagittarius 24  
    Solar Fire = 12 Sagittarius 23
4. Venus:                      23 August 2007                      11.30 pm  
    Hand calculation = 21 Leo 20 Retrograde  
    Solar Fire 21 Leo 20 Retrograde
5. Mars:                      7 April 2018                      9.50pm  
    Hand calculation = 11 Capricorn 48

10 marks

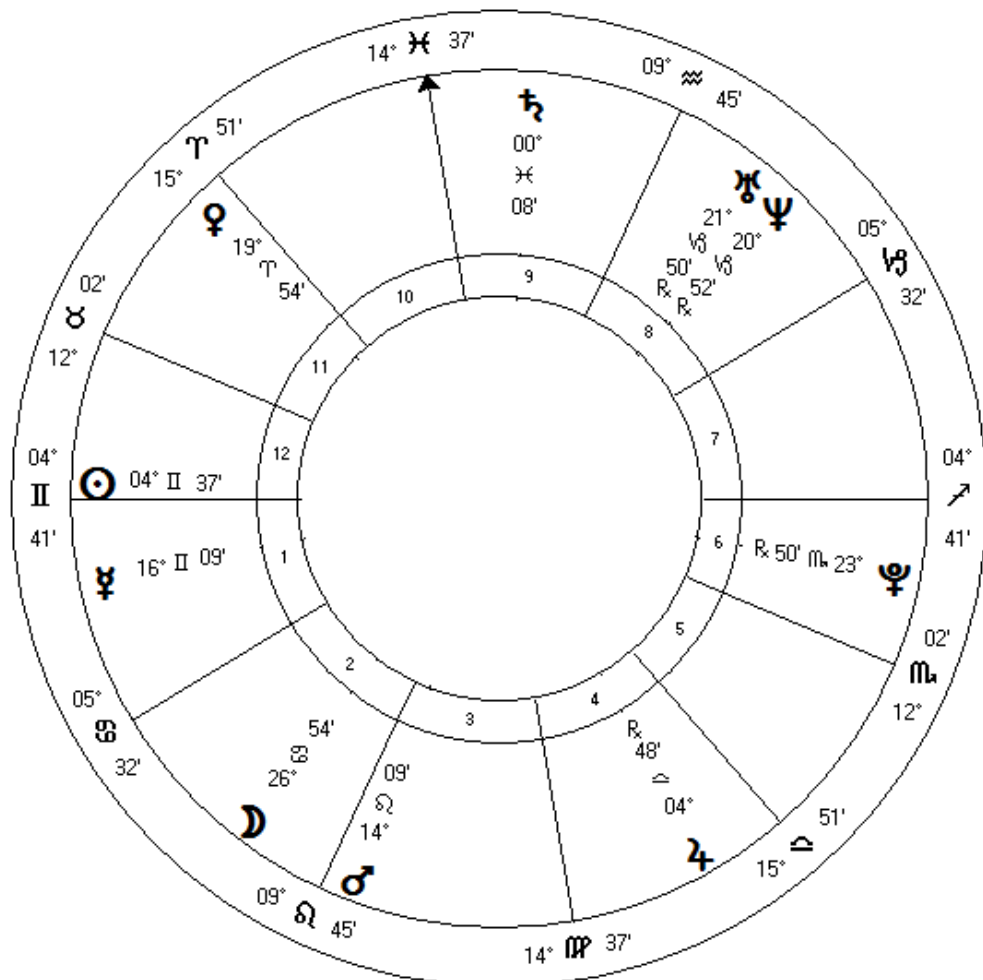
Solar Fire = 11 Capricorn 47

## END OF SECTION 1

## SECTION 2 - Total 20 Marks

Use the chart provided to answer all the questions in Section 2

**Section 2: 2018**  
**Natal Chart**  
26 May 1993, Wed  
6:38 am AEST - 10:00  
Bellingen, AUSTRALIA  
30°S27' 152°E54'  
Geocentric  
Tropical  
Placidus  
True Node



## SECTION 2 – Total 20 Marks

Q1 Using the aspect grid supplied find only the following aspects using the stated maximum orbs. **Use only the ten main planets provided.**

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

20 aspects = half a mark each

**Section 2: 2018**  
**Natal Chart**  
 26 May 1993, Wed  
 6:38 am AEST -10:00  
 Bellingen, AUSTR  
 30°S 27° 152°E 54'  
*Geocentric*  
*Tropical*  
*Placidus*  
*True Node*

Aspect Grid

10 marks

	☾	☉	♃	♄	♅	♆	♇	♁	♂
☾	☾				♁				
☉		☉							♁
♃			♃						
♄			♁	♄					
♅			♁	♁	♅				
♆						♆			
♇							♇		♁
♁								♁	♁
♂									♁

Q2 Using only the planets [and the above orbs], name one aspect pattern and list the planets that form this pattern.

2 marks

T-square with the Moon opposite Uranus and Neptune, all squaring Venus.

Q3 Name one planet in its dignity [rulership]. **Moon[in Cancer] Pluto in Scorpio** 1 mark

Q4 Which planet disposes Venus? **Mars [in Leo]** 1 marks

Calculate the Lunation Phase for this chart?

**Crescent Moon** = Sun/Moon Angle = 52 degrees 16 [Solar Fire]  
or 52 degrees 17 [Hand calculations]

Q5 **Formula: Moon - Sun** 2 marks  
Use celestial longitude  
**Moon [26 Cancer 54 /6 degrees 116 54 - Sun [4 Gemini 37] / 64 37**  
**= 52 degrees 17**

Calculate the short arc midpoint of the Sun and Jupiter to the nearest degree.

Q6 **Convert to celestial longitude then divide by 2 and convert back.** 2 marks  
**Sun – 4 Gemini 37 = 64 degrees 37**  
**Add Jupiter – 4 Libra 48 = 184 degrees 48**  
**= 248 degrees 85 249 25**  
**Divide by 2 = 124 degrees 42.5 minutes 124 42 30**  
**Convert back = ANSWER = 4 Leo 42 [Solar Fire 4 Leo 43]**

Using the diurnal formula, calculate the Part of Fortune to nearest degree.

Q7 **Formula: ASC + Moon - Sun** 2 marks  
**Convert to celestial longitude**  
**ASC 4 Gemin 41 / 64 degrees 41minutes**  
**+ MOON 26 Cancer 54 = 116 degrees 54**  
**= 180 degrees 95 181 35**  
**-SUN 4 Gemini 37 = 64 37**  
**= 116 degrees 37 minutes 116 58**  
**Convert back = ANSWER: 26 Cancer 48 26 Cancer 58**

**END OF SECTION 2**

**ANSWERS 2018 CALCULATION SECTION 3 AND 4**  
**SECTION 3 – 30 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.**

**Q1 Calculate a 12 month Secondary Progressed Moon table for Pauline for 2018, starting from January 9, to the nearest 30 minutes of an arc**

**6 marks**

**ACD date using midnight ephemeris is 9<sup>th</sup> March 1954**

Count 64 days from GMT DOB = 30<sup>th</sup> July 1954

0 hr Moon position on this day is 7 Leo 9 minutes 57 seconds– place next to March 9

Monthly Adjustment using Michelsen 12 hour Moon

Midnight position 7 Leo 9 mins 57 secs

Noon position same day 13 Leo 48 min 09 secs

**Difference = 6 38 12**

divide by 6 for monthly rate of travel = **1 degree 6 min 22 secs**

so add and subtract from ACD date of **March 9 2018**

Hand Calculations

9 Jan 2018 4 Leo 57 13

9 Feb 6 03 35

**9 March 2018 [ACD] 7 Leo 9 min 57 secs**

9 April 8 16 54

9 May 9 23 16

9 June 10 29 38

9 July 11 36 00

9 August 12 42 22

9 September 13 48 44

9 October 14 55 06

9 November 16 01 28

9 December 17 Leo 07 mins 50 secs

**Note:** The Solar Fire position for the progressed moon on December 9 2018 is 12 .....within 30 minutes tolerance.

**Q2 Age of 3rd Secondary New Moon = 63 years of age at 6 Leo 34**

**3 marks**

Using GMT date 25 May 1954 as 0 count down in ephemeris until you reach 3<sup>rd</sup> New Moon = 29 July 1954 at 6 Leo 14

Day for a year therefore = 63 years old.

**Q3 Age when Progressed Sun conjuncts MC = 50 years old**

**2 marks**

Natal MC = 22 Cancer 55 . Count down from GMT DOB Sun at 5 Gemini 22 until Sun reaches 22 Cancer 55 on 15<sup>th</sup>/16<sup>th</sup> July = 49 years /50 years

**Q4 Age Solar Arc Mercury conjuncts natal Pluto = 61 years of age 3 marks**

Subtract	Pluto	=	22 Leo 39	142 39
	Mercury	=	34 Gem 31	<u>84 31</u>
			SA difference	= 58 08
	Sun	=	5 Gem 22	65 22
ADD			SA Diff.	<u>58 08</u>
				= 123 30 = <b>3 Leo 30</b>

**Go down ephemeris using GMT DOB as 0 until Sun reaches the required position of 3 Leo 30 = 61 years old**

**Q5 During 2019 and 2020 Transiting Pluto will quincunx Pauline's natal Pluto.**

**List the exact GMT dates of this aspect. 2 ½ marks**

Pluto= 22 Leo 39= Dates that Pluto quincunx this point =22Cap 39

1. 10 March 2019
2. 11 June 2016
3. 8<sup>th</sup>/9 Jan 2020
4. 7<sup>th</sup>/8 Sept 20
5. 30 Oct 2020



**Q6. Using a 1 degree orb, both applying and separating, list the exact GMT periods when Uranus opposes Natal Saturn during 2019 and 2020. 3 marks**

Saturn = 3 Scorpio 54 Uranus opp 2 Taurus 54 – 4 Taurus 54

- 29 April 19 – 5<sup>th</sup>/6 June 19;
- 20/21 Oct 19- 17<sup>th</sup>/18 Dec 19
- 4 Feb 20 – 27 March 20

**Q7. When will Pauline experience her next Mars Return?**

Natal Mars 8 Cap26

Return 28/29 February 2020

**1 ½ marks**

**Q8. List the exact [GMT] dates and zodiacal degrees of all solar and lunar eclipses for 2019.**

**2 ½ marks**

**Solar Eclipses**

**6 Jan 19 – 15 Cap 25**

**2 July 19-10 Can 38**

**26 Dec 19-4 Cap 07**

**Lunar Eclipse**

21 Jan 10 – 0 Leo 52

16 July 19 – 24 Cap 04

**Q9. What are the exact (GMT) periods when Mercury is retrograde during 2018?**

**1 ½ marks**

23 March to 15 April, 26 July to 19 Aug; 17 Nov to 6 Dec

**10. Calculate the Adjusted Calculation Date for the following birth data:**

21 May, 1953 9 05 pm

**5 marks**

**Sydney NSW Australia**

**Standard Time Zone -10 hours (no daylight savings)**

Step 1 TOB 21 05 00 on 21 May 1953

Minus 10 00 00 hours STZ adjustment

GMT 11\_05 00 on 22 May 1953

Step 2 Sidereal time from ephemeris =15 53 21 on GMT date 21 May 1953

Subtract GMT 11 05 00

Difference is ACD Sidereal time 4 48 21

Step 3 Turn back in ephemeris to this time

**Step 4 Adjusted Calculation date =3 Dec1952 (Midnight ephemeris)**

**SECTION 4 – TOTAL 20 MARKS**

Section 4 Answers:

Q1 c Q2 c Q3 b Q4 a Q5 b Q6 b

Q7 c Q8 c Q9 b Q10 c Q11 a Q12 b

Q13 d Q14 d Q15 c Q16 a Q17 c Q18 c

Q19 d Q20 b Q21 d Q22 d Q23 a Q24 b

