

2021 Calculation Exam Answers

Section 1 – 30 marks

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

Q1

- (a) 14 January 1981 3:00 am
 Warragul, VIC Australia 38S10 145E56
 Standard Time Zone - 10 hours east of Greenwich
 Daylight savings yes – 1 hour
 10 marks

LST (Solar Fire – Southern) = 9 hours 15 minutes 55 seconds
 LST (Hand calculation - Southern) = 9 hours 13 minutes 48 seconds
 LST (adjusted for Northern) = 21 Hours 15 minutes 55 seconds

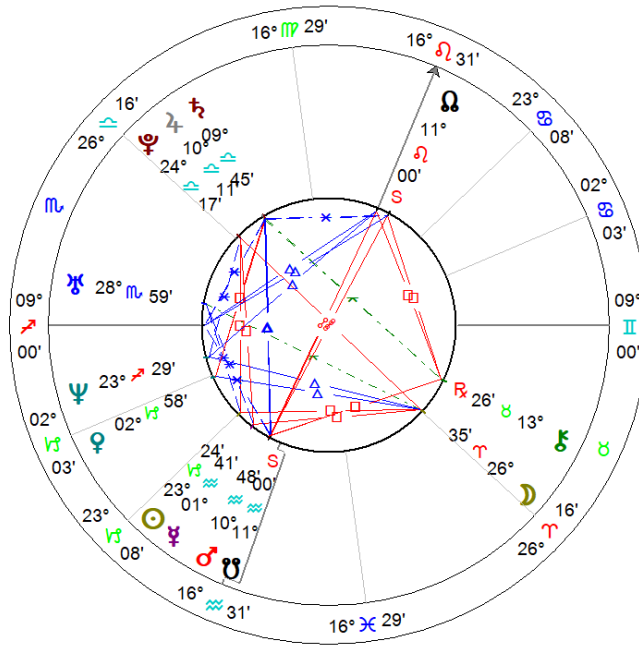
Sidereal Time (Table of Houses) = 9 hours 16 minutes / 21 hours 16 minutes - within a 1-degree orb

Solar Fire Houses cusps

MC	16 Leo 31
11 th	16 Virgo 29
12 th	26 Libra 16
1 st	09 Sagittarius 00
2 nd	02 Capricorn 03
3 rd	23 Capricorn 08

LST Local Sidereal Time: 21 hours 13 minutes 48 seconds (hand calculation)			
Hse	Calculation House Cusps 21h 12m [interpolated]	Calculation House Cusps 21h 16m	Solar Fire Computer
MC	15 Leo 32	16 Leo 33	16 Leo 31
11 th	15 Virgo 19	16 Virgo 32	16 Virgo 29
12 th	24 Libra 56	26 Libra 16	26 Libra 16
1 st	07 Sagittarius 49	08 Sagittarius 55	09 Sagittarius 00
2 nd	01 Capricorn 06	02 Capricorn 01	02 Capricorn 03
3 rd	22 Capricorn 14	23 Capricorn 08	23 Capricorn 08

Section 1 Q1a
Natal Chart
 14 Jan 1991, Wed
 3:00 am, AEDT -11:00
 Werreagul, AUSTRALIA
 38°S10°145'E56'
Geocentric
Tropical
Placidus
True Node
 Rating: A



(b) 4 April 1991 9:00 am
 Auckland, NZ 36S52 174E46
 Standard Time Zone - 12 hours east of Greenwich
 Daylight savings no
 10 marks

LST (Solar Fire – Southern) = 21 hours 25 minutes 49 seconds
 LST (Hand calculation - Southern) = 21 hours 24 minutes 15 seconds
 LST (adjusted for Northern) = 9 Hours 25 minutes 49 seconds
****LST adjusted for Southern Latitude = 9 h 25 m 50 s**

Sidereal Time (Table of Houses) = 21 hours 24 minutes / 9 hours 25 minutes - within a 1-degree orb

Solar Fire Cusps Houses cusps

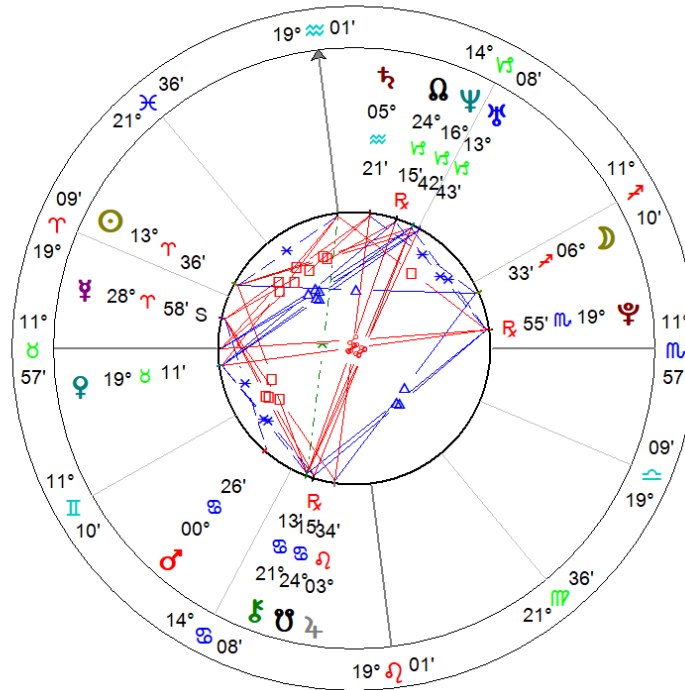
MC	19 Aquarius 01
11 th	21 Pisces 36
12 th	19 Aries 09
1 st	11 Taurus 57
2 nd	11 Gemini 10
3 rd	14 Cancer 08

* Use the LST calc sheet for Southern Hemisphere (where we add 12 hours)
 Southern LST = 57 h 25m 50s - 48 hrs = 9h 25m 50s
 Many students do not have the southern latitude ephemeris – they use American Ephemeris mostly.

LST Local Sidereal Time: 21 hours 24 minutes 15 seconds (hand calculation)		
Hse	Calculation House Cusps 21h 24m [interpolated]	Solar Fire Computer
MC	18 Aquarius 34	19 Aquarius 01
11 th	21 Pisces 10	21 Pisces 36
12 th	18 Aries 44	19 Aries 09
1 st	11 Taurus 32	11 Taurus 57
2 nd	10 Gemini 44	11 Gemini 10
3 rd	13 Cancer 41	14 Cancer 08

LST Local Sidereal Time: 9 hours 25 min 50 sec (hand calculation)		
Hse	Calculation House Cusps	Solar Fire Computer
MC	19 Aquarius 02	19 Aquarius 01
11 th	21 Pisces 38	21 Pisces 36
12 th	18 Aries 45	19 Aries 09
1 st	11 Taurus 55	11 Taurus 57
2 nd	11 Gemini 08	11 Gemini 10
3 rd	13 Cancer 48	14 Cancer 08

Section 1 Q1b
Natal Chart
 4 Apr 1991, Thu
 9:00 am NZT -12:00
 Auckland, NZ
 36°S52' 174°E46'
Geocentric
Tropical
Placidus
True Node
 Rating: A



Q2 Calculate the longitudinal positions of the following planets to within 30 minutes of zodiacal longitude. All data below is in GMT.

	Planet	Date	Time	Computer	Hand calculation
a.	Sun	1 January 2002	3:16am	10 Capricorn 31	10 Capricorn 31
b.	Moon	15 December 1960	10:20am	12 Scorpio 10	12 Scorpio 10
c.	Mercury	3 June 1995	2:00pm	15 Gemini 03 Rx	15 Gemini 02 Rx
d.	Venus	21 March 2015	8:30am	4 Taurus 43	4 Taurus 43
e.	Mars	30 April 1981	9:45pm	4 Taurus 09	4 Taurus 10

END OF SECTION 1

Section 2 – 20 marks

SECTION 2 – Total 20 Marks

Working out sheets to be provided with the answers in this section

unless specified otherwise

Using the aspect grid supplied find only the following aspects using the stated maximum orbs. **Include only the ten main planets:** Chiron & the Nodes are not required. *No working out sheet required*

Conjunction8 degree orb.

Square.....8 degree orb.

Opposition8 degree orb.

Trine8 degree orb.

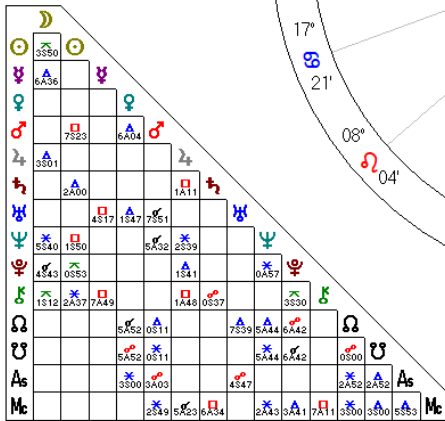
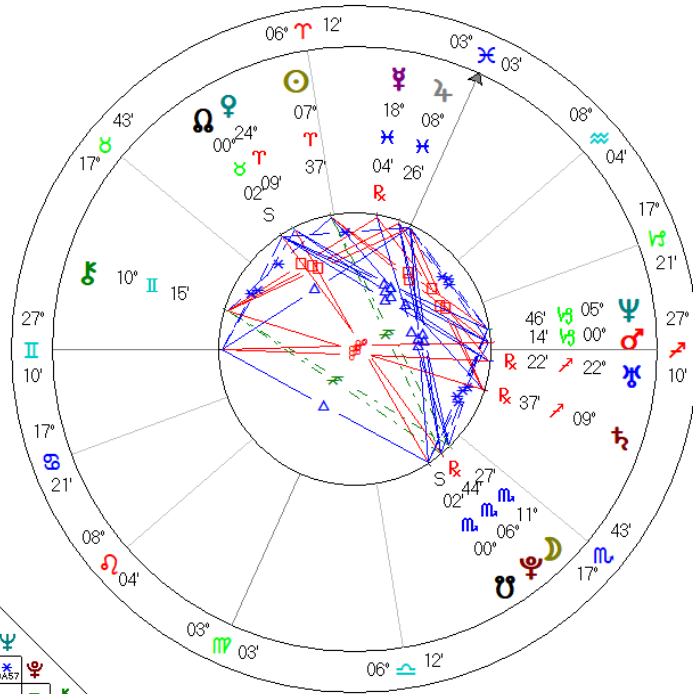
Sextile6 degree orb.

Quincunx4 degree orb.

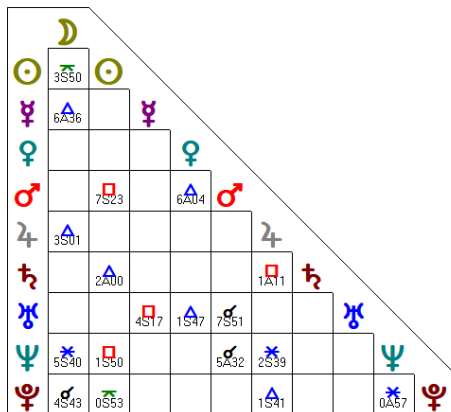
9 marks

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

Lady Gaga
Natal Chart
 28 Mar 1986, Fri
 9:53 am EST -5:00
 Manhattan, New York
 40°N46' 073°W59'
 Geocentric
 Tropical
 Placidus
 True Node



Q1. Using the aspect grid supplied in the Answer booklet, find only the following aspects using the stated maximum orbs. Use only the ten main planets provided. Chiron and the Nodes are not required.



18 aspects, half a mark (0.5) each = total 9 marks

Q2. Using the planets only (including Chiron) [and the above orbs], name two aspect patterns and list the planets that form these patterns.

2 marks

T-square = Jupiter, Saturn, Chiron

Yod = Moon/Pluto, Sun, Chiron

Easy opposition = Sun, Saturn, Chiron

Q3. What is the Lunation Phase for this chart?

1 mark

Full Moon Phase

Convert Moon and Sun to celestial longitude then subtract.

Moon 221 27 minus Sun 7 37 = 213 50 therefore Full Moon

Q4. What is the short arc midpoint of Moon and Venus?

2 marks

2 Aquarius 48

Convert to celestial longitude, add 360 to Venus, minus Moon, divide by 2, + answer to moon and convert back.

Venus 24 09 + 360 = 384 09 - Moon 221 27 = 162 42 divided x 2 = 81 21 + 221 27 = 302 48 = 2 Aquarius 48

Q5. What planet is the chart ruler?

1 mark

Mercury

Q6. Using modern and/or traditional planets, list one planet in its detriment, one planet in its rulership, and one planet in its exaltation.

1.5 marks

Detriment = Venus in Aries/Mercury in Pisces

Rulership = Pluto in Scorpio/Jupiter in Pisces

Exaltation = Mars in Capricorn/Sun in Aries

Q7. Which planet rules the Ascendant; what sign and house is it in?
1.5 marks

Mercury is the planet that rules Asc & it is in Pisces in the 10th house

Q8. Using the diurnal formula, calculate the Part of Fortune to nearest degree.
2 marks

1 Aquarius 00

Formula: ASC + Moon – Sun

Convert to celestial longitude

Ascendant = 27 Gemini 10 + Moon 11 Scorpio 27 - Sun 7 Aries 37

87 10 + 221 27 = 308 37 = 308 37 – 7 37 = 301 00 therefore 1 Aquarius 00

END OF SECTION 2

2021 CALCULATION EXAM

SECTION 3 = 30 MARKS

Kamala Harris

Natal Chart

20 Oct 1964, Tue

9:28 pm PDT +7:00

Oakland, CA

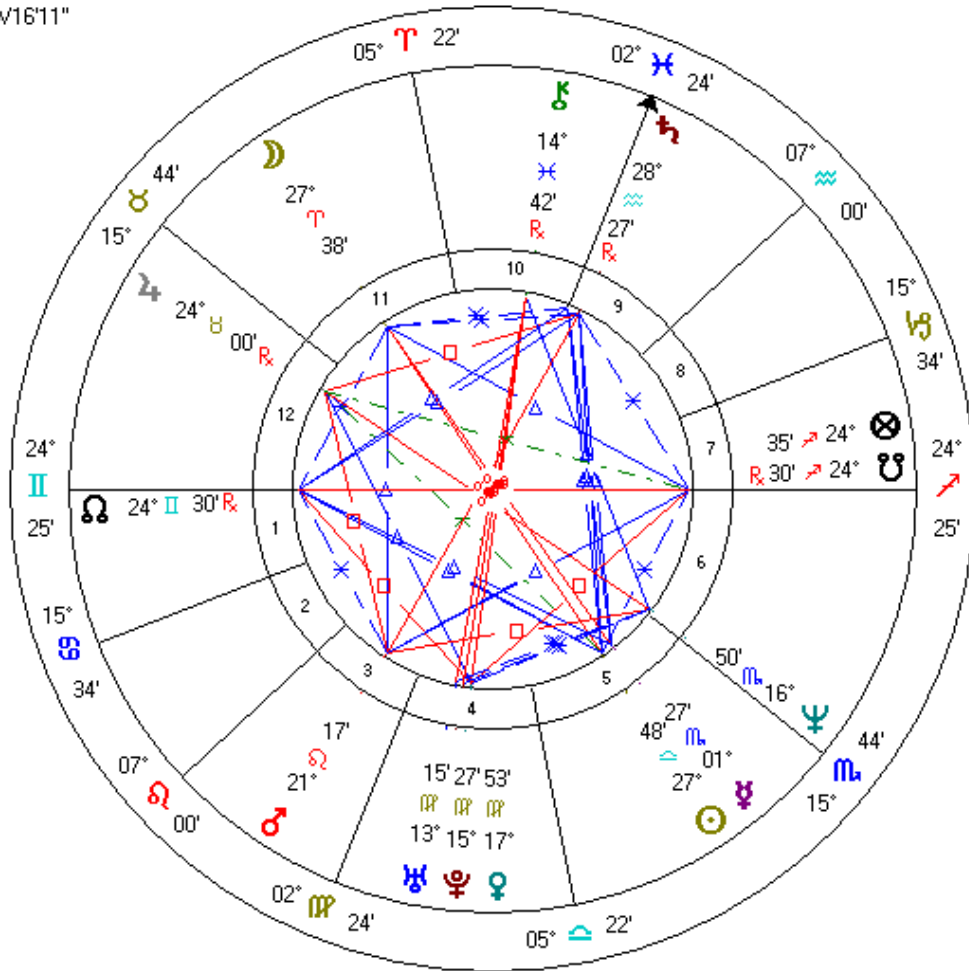
37°N48'16" 122°W16'11"

Geocentric

Tropical

Placidus

True Node



ACD Calculation: Kamala Harris : 20 Oct 1964 – 9.28 pm – Oakland CA

PDT + 7 hours - 37N49 122W16

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

$$\begin{array}{r} 21: 28 \text{ hrs minus 1 hr daylight saving} \\ = \underline{20: 28} \\ + \quad \underline{07: 00} \\ \hline 27: 28 \text{ hrs} = \text{next day } \mathbf{21 \text{ Oct} = 3: 28 \text{ am (GMT)}} \end{array}$$

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

$$\begin{array}{r} 24: 00 \\ - \underline{3: 28 \text{ hrs}} \\ = \quad 20: 32 \end{array}$$

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

$$\begin{array}{r} 20:32:00 \\ \underline{1: 57:52} \quad \text{Sid Time on 21 Oct 1964} \\ \hline 22: 29: 52 \end{array}$$

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

n/a

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!)**

Look back in Ephemeris for nearest Sid Time close to 22 **29 52**

= Midnight: **29 August 1964**

Noon: **28 February 1964**

All questions in Section 3 relate to Kamala's chart,
except for Questions 8, 9 and 10.

All answers to be in GMT.

Working out sheets to be provided with the answers in this section, unless otherwise specified.

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.

Kamal Harris' ACD: Midnight ephemeris: ACD = 29 August 1964

Noon ephemeris: ACD = 28 February 1964

GMT of birth = 21 October 1964 (3.28 am)

Rule for determining the **GMT** (or UT – Universal Time) of birth (East and West) You need to **know the time zone** for the birth. You get UT by **adding the Time Zone** if the birth was **West of Greenwich**, or by **subtracting the time zone** if the birth was East of **Greenwich**.

You also need to **subtract** any daylight-saving time.

Q1 Calculate a [12] monthly Secondary Progressed Moon table for Kamala Harris for 2022, starting from January 29 to the nearest 30 minutes of arc.

6 marks

GMT DOB 21.10.1964 ACD 29th August

Year of Table = 2022

Year of Birth - 1964

Result = 58

To find the Ephemeris Date (ED) in the ephemeris count down 58 days from 21 Oct 1964 = 18th December that shows the Progressed planets at Midnight.

As the ADC is August you need to calculation the Moon's movement for the day before and the day after the 18th December (ED)

Moon position midnight 17/12 = 25 Taurus 31 57 = 29th August 2021

Moon position midnight 18/12 = 10 Gemini 22 47 = 29th August 2022

Moon position midnight 19/12 = 25 Gemini 31 57 = 29th August 2023

Progressed Moon movement

From 29 Aug 2021 to 29 Aug 2022

10 Gemini 22'47" – 25 Taurus 31' 57" = 14 deg 22' 47 = 862 minutes divide by 12 = 1 deg 11'50"

Monthly Progressed Moon movement = 1 deg 11' 50"

From 29 Aug 2022 to 29 Dec 2022

25 Gemini 31' 57" minus 10 Gemini 22' 47" = 15 09' 10" 15 09' 10" = 909 minutes divide by 12 = 1 deg 15'46"

Monthly Progressed Moon movement = 1deg 15' 46"

Progressed Moon Table

2022	Solar Fire	By Hand
29 Jan	1 Gemini 40	1 Gemini 59
29 Feb	2 Gemini 56	3 Gemini 11
29 March	4 Gemini 04	4 Gemini 23
29 April	5 Gemini 21	5 Gemini 35
29 May	6 Gemini 34	6 Gemini 47
29 June	7 Gemini 51	7 Gemini 59
29 July	9 Gemini 05	9 Gemini 10
29 August	10 Gemini 22	10 Gemini 22
29 September	11 Gemini 38	11 Gemini 38
29 October	12 Gemini 53	12 Gemini 54
29 November	14 Gemini 10	14 Gemini 10
29 December	15 Gemini 24	15 Gemini 25

Q2 How old will Kamala be when she experiences her 3rd Secondary Progressed Full Moon? What degree and signs? 3 marks

58/59 years (turns 59 on 20 Oct 2023)

Prog. Moon 27 Gemini 14 opposite Prog. Sun 27 Sagittarius 14

Count down from GMT date of birth (21 Oct 1964) 59 days (Years) to 19/12/1964 in ephemeris to 3rd Progressed Full Moon Sagittarius & Gemini

Q3 At what age will Kamala's Progressed Sun conjunct her natal Descendant?

In Ephemeris: Count down Sun from GMT 0 (21 Oct) to when Sun aches 24 Sag 25 = 16 Dec 1964 = 56 days = **56 years**

Q4 How old will Kamala be when her Solar Arc Venus conjuncts her natal Neptune?

Neptune = 16 Scorpio 50' Convert 226 50'

Venus = 17 Virgo 53' Convert 167 53'

Difference = 58 57"

Sun Libra 27 28" (207 48') plus Solar Arc difference 58 57"

= 266 45' = 26 Sagittarius 45'

Sun needs to be at 26 Sagittarius 45'

Count Sun from GMT DOB on 21/10 until Sun at this position is reached or closest to it = 18 Dec 1964 = 26 Sagittarius 45'

58/59 years 18 Dec = 26 Sag 06 = 58 years; 19 Dec 27 Sag 07 closer so **59 years**

Q5 During 2021 and 2022 transiting Pluto squares Kamala's Moon. List the exact GMT dates. *No working out sheet required.*

Moon = 27 Aries 38:

23 - 24/2/2022; 7 - 8/7/2022; 31/12/2022

Q6 Using a one-degree orb, both separating and applying, list the GMT periods when Transiting Neptune squares Kamala's Ascendant. *No working out sheet required.*

Asc = 24 Gem25

1 deg orb = 23 Pisc25 to 25 Pisce25

2022: 27/28/March to 18/19/June; 8/July – 9/Oct

2023: 25/26/Jan – 23/24/March; 22/Oct/2023 - 18/19/Jan/2024

Q7 List the exact GMT date when Kamala will experience her 2nd Saturn Return. *No working out sheet required.*

22 February 2023

Q 8List the exact [GMT] dates and zodiacal degrees of all Solar and Lunar Eclipses for 2022. *No working out sheet required.*

Partial Solar Eclipse: 30/4/22 10 Taurus 28

Total Lunar Eclipse: 16/5/22 25 Scorpio 18

Partial Solar Eclipse: 25/10/22 10 Scorpio 00

Total Lunar Eclipse: 8/11/22 16 Taurus 01

Q9. What are the exact [GMT] periods when Mercury retrogrades during 2021? *No working out sheet required.*

30/1 - 21/2/:

29/5 – 22/6:

27/9 – 18/10

Q10 Calculate the GMT Adjusted Calculation Date for the following birth data:

22 January 1991 7.15 am

Sydney, NSW, Australia

Standard Time Zone: -10 hours (Daylight Savings Time in effect)

Answer - ACD methodology for Section 3 Q10

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

07.15 – 1.00 (daylight) = 6.15 am - 10 hrs = 20.15 pm GMT
= **20.15 pm** (on 21 Jan 1991)

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

$24\ 00 - 20.15 = 3\ \text{h}\ 45\ \text{m}$

Step 3: **Add** this answer to Midnight SIDEREAL TIME in Ephemeris for GMT date of birth: 21 Jan 1991

07h 59" 27' on 21 Jan

+ 03h 45" 00'

11h 44" 27'

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!)**

Answer: ACD = 18/19 March 1990

END OF SECTION 3

SECTION 4 - TOTAL 20 MARKS

Answer ONLY 20 questions of a possible 25

No working out sheets are required for Section 4.

Please fill in your answers in the answer book provided.

1. Under which Natal Lunation Phase would a person be born with their Sun at 29 degrees Aquarius and their Moon at 20 Leo?
 - a. New Moon
 - b. **Gibbous**
 - c. Full Moon
 - d. Disseminating

2. Uranus was discovered in
 - a. 1881
 - b. **1781**
 - c. 1791
 - d. None of the above

3. In Australia, the Sun is at it's fastest at the
 - a. Autumn Equinox
 - b. **Summer Solstice**
 - c. Spring Equinox
 - d. Winter Solstice

4. The Sun reaches its maximum declination north and south of the equator [and is overhead at the Tropic of Capricorn and Cancer] at
 - a. The Equinoxes
 - b. **The Solstices**
 - c. Beginning of Spring
 - d. None of these

5. A chart has the Sun quincunx Jupiter, Sun sextile Saturn, Jupiter quincunx. This aspect pattern is called a
 - a. Trine
 - b. Mystical Rectangle
 - c. T-Square
 - d. **Yod**

6. The planet Venus goes Retrograde approximately every 18 months, for how long?
 - a. Approx 9 weeks
 - b. **Approx 6 weeks**
 - c. Approx 3 weeks
 - d. Different lengths of time depending on which sign it is in

7. The Void-of-Course Moon means:
 - a. The moon is no longer in a sign
 - b. **The Moon will not make any further aspects in that sign**
 - c. The Moon is at its furthestmost point from the earth
 - d. The rotation of the Moon has caused it to go off course
 - e.
8. Mary is born with Pluto at 13 Sagittarius and her Sun is at 2 Taurus. What age will Mary be when her Solar Arc Sun makes an exact opposition to her Pluto?
 - a. 38 years
 - b. **41 years**
 - c. 23 years
 - d. 29 years
9. The astrology of countries is called:
 - a. Horary astrology
 - b. Relocational astrology
 - c. **Mundane astrology**
 - d. None of the above
10. Using the derived house system, which house represents your neighbour's child:
 - a. 11th House
 - b. **7th House**
 - c. 6th House
 - d. 9th House
11. Which planet is both accidentally dignified and in its fall?
 - a. **Mars Cancer in 1st**
Venus Scorpio in 7th
 - b. Mars Capricorn in 10th
 - c. Mercury Gemini in 4th
12. During Daylight Saving, clocks are:
 - a. Moved back one hour
 - b. Amount of time varies from year to year
 - c. Moved back and forward, depending on the country
 - d. **Moved forward one hour**
13. Pluto's Moon is:
 - a. **Charon**
 - b. Chryses
 - c. Calliso
 - d. None of the above

14. The Saturn - Uranus conjunction takes place about every:
- 36 years
 - 45 years
 - 171 years
 - None of the above
15. What is the Tropical Zodiacal position of the Sun at the Vernal Equinox in the Northern Hemisphere:
- 0 degrees Cancer
 - 0 degrees Libra
 - 0 degrees Capricorn
 - 0 degrees Aries
16. In Medical Astrology the feet are ruled by:
- Pisces
 - Aquarius
 - Aries
 - Taurus
17. What planetary chart pattern would be indicated by a Natal Chart that has all the planets located between 15 degrees Aquarius and 28 degrees Scorpio with no planets in Sagittarius, Capricorn or Pisces?
- Locomotive
 - Bowl
 - Bucket
 - Splash
18. Which planet is 'exalted' in the sign of Pisces
- Moon
 - Neptune
 - Venus
 - Jupiter
19. Moon is said to be dignified in what house?
- Fourth house
 - First house
 - Eleventh house
 - Ninth house

20. Which sign is not a fixed sign?
- Cancer
 - Taurus
 - Aquarius
 - Leo
21. Which two planets are in mutual reception?
- Mars in Aries and Venus in Taurus
 - Moon in Taurus and Venus in Cancer
 - Moon in Cancer and Mercury in Gemini
 - Mars in Scorpio and Pluto in Pisces
22. The Nodal Return occurs every:
- 18 ½ years
 - 12 years
 - 20 years
 - None of the above
23. The term 'Aphelion' means:
- Closest point to the Sun
 - Furthest distance from the Moon
 - Blocking the Sun's light
 - Furthest distance from the Sun
24. When person A is born at 1.15 am and person B is born at 2.30 am in the same hospital on same day, then 2nd person B has their Ascendant:
- At the same degree of zodiacal longitude but with a different MC
 - At an earlier degree of zodiacal longitude
 - Cannot tell without calculating the chart
 - At a later degree of zodiacal longitude
25. When the Moon in its monthly cycle crosses the ecliptic moving South, this is called:
- The Lunar Eclipse
 - The South Node
 - The North Node
 - The Dark Moon

END OF SECTION 4

