2018 Senior Jeopardy Study Material

Ushra Mubasharah: Part One
 Ushra Mubasharah: Part Two

3. Women of Paradise

4. Muslim Contributions to Math, Science and Medicine

Topic 1: Ushra Mubasharah - Part 1

Ushra Mubasharah is a special category of ten companions who were promised Jannah in their life time, while they were living.

Abdur Rahman ibn Awf reported: The Messenger of Allah, peace and blessings be upon him, said, "Abu Bakr is in Paradise, Umar is in Paradise, Uthman is in Paradise, Ali is in Paradise, Talha is in Paradise, Az-Zubair is in Paradise, Abdur Rahman ibn Awf is in Paradise, Sa'd is in Paradise, Sa'eed is in Paradise, and Abu Ubaida is in Paradise." Source: Sunan At-Tirmidhi 3747, Graded: Sahih (authentic) according to as-Suyuti.

The following are the names of the ten companions promised Jannah:

- 1. Abu Bakr As Siddig
- 2. Umar Bin Khattab
- 3. Uthman Bin Affan
- 4. Ali Ibn Abi Talib
- 5. Talha Ibn Ubaydullah
- 6. Az Zubavr ibn Al Awwam
- 7. AbdurRahman Ibn Awf
- 8. Saad Ibn Abi Waggas
- 9. Saeed Ibn Zayd
- 10. Abu Ubaidah A'mer Ibn Al Jarrah

Abu Bakar As Siddiq

- Abu Bakar (ra) belonged to Banu taym clan of Qureshi tribe.
- Abu Bakr was a fairly wealthy merchant, and before he embraced Islam, was a respected citizen of Makkah.
- He was three years younger than Muhammad (s). He remained the closest Companion of the Prophet all through the Prophet's life.

- Abu Bakr (ra) was among the earliest to accept Islam and at his hands, five of the Ashra Mubashiroon accepted Islam.
- He was given the title of As Siddiq by Prophet(s).
- He accompanied Prophet(s) on the migration to Madinah.
- In the numerous battles which took place during the life of the Prophet(SAW), Abu Bakr was always by his side. Once, he brought all his belongings to the Prophet(SAW), who was raising money for the defense of Madinah. The Prophet(SAW) asked, "Abu Bakr, what did you leave for your family?" The reply came: "God and His Prophet (SAW)."
- The most significant contribution of Abu Bakr (ra) to the cause of Islam was the collection and compilation of the verses of the Qur'an as a single book.
- Abu Bakr (ra) passed away at the age of sixty-three, and was buried by the side of the Holy Prophet (peace be on him). His Caliphate had been of twenty-seven months duration.

Umar Ibn Al Khattab

- After the death of Abu Bakr (RA), Umar (RA) was chosen to be his successor.
- Umar Ibn Al Khattab was born into a respected Quraysh family thirteen years after the birth of Muhammad (peace be on him).
- Umar's personality was dynamic, self-assertive, frank and straight forward. He always spoke whatever was in his mind even if it displeased others.
- Umar (ra) was twenty-seven when the Prophet (peace be on him) started preaching Islam. The ideas Muhammad (SAW) was preaching enraged Umar as much as they did the other notables of Makkah. He was just as bitter against anyone accepting Islam as others among the Quraysh. He did not believe in the teachings of Muhammad(SAW) and did not like Islam or the Muslims. One day, full of anger against the Prophet (s), he drew his sword and set out to kill him. A friend met him on the way. When Umar told him what he planned to do, his friend informed him that Umar's own sister, Fatimah, and her husband Saeed Bin Zayd (ra) had also accepted Islam. Umar (ra) went straight to his sister's house where he found her reading from pages of the Qur'an. He fell upon her and beat her mercilessly. Bruised and bleeding, she told her brother, "Umar, you can do what you like, but you cannot turn our hearts away from Islam." These words produced a strange effect upon Umar(ra). What was this faith that made even weak women so strong of heart? He asked his sister to show him what she had been reading, but his sister told him to clean himself before touching the Quran. After he cleansed himself and began reading Surah Taha, he became fascinated at what he was reading. He could not stop reading the wonderful verses and immediately decided to accept Islam. He went straight to the house where the Prophet (s) was staying and declared his faith in Islam.
- The Prophet (s) gave him the title 'Al-Faruq' which means the 'Separator of Truth from Falsehood'.

- During the Caliphate of Abu Bakr, Umar(ra) was his closest assistant and adviser. When Abu Bakr (ra) died, all the people of Madinah swore allegiance to Umar (ra), and he was proclaimed Caliph.
- The most notable feature of Umar's Caliphate was the vast expansion of Islam.
- He insisted that his appointed governors live simple lives, keep no guard at their doors and be accessible to the people at all times, and he himself set the example for them.
- He spent many a watchful night going about the streets of Madinah to see whether anyone needed help or assistance.
- Umar died in the first week of Muharram, 24H, and was buried by the side of the Holy Prophet (peace be on him).
- As a Caliph, Umar (ra) ruled for ten years.

Uthman Bin Affan

- Uthman (ra) belonged to the Umayyad branch of the Quraysh tribe.
- Before Umar (ra) died the people asked him to nominate his successor. Umar (ra) appointed a committee consisting of six of the ten companions of the Prophet (peace be on him) about whom the Prophet had said, "They are the people of Heaven" (Ashra Mubasharah) 'Ali, 'Uthman, 'Abdur-Rahman, Sa'ad, Az-Zubayr and Talhah to select the next Caliph from among themselves. He also outlined the procedure to be followed if any differences of opinion should arise.
- Abdur-Rahman withdrew his name from being the caliph. He was then authorized by
 the committee to nominate the Caliph. After two days of discussion among the
 candidates and after the opinions of the Muslims in Madinah had been ascertained, the
 choice was finally limited to Uthman and Ali. Abdur-Rahman came to the mosque
 together with other Muslims, and after a brief speech and questioning of the two men,
 swore allegiance to Uthman. All those present did the same, and Uthman became the
 third Caliph of Islam.
- Uthman (ra) and Abu Bakr (ra) were close friends, and it was Abu Bakr (ra) who brought him to Islam when he was thirty-four years of age.
- His relatives subjected him to torture because he had embraced Islam, and he was
 forced to emigrate to Abyssinia. Some time later he returned to Makkah but soon
 migrated to Madinah with the other Muslims.
- In Madinah his business began to flourish and he regained his former prosperity.
 Uthman's generosity had no limits. That is why he came to be known as 'Ghani' meaning 'Generous'.
- Uthman's wife, Ruqayyah (Prophet saw's daughter) was seriously ill just before the Battle of Badr and he was excused by the Prophet (peace be on him) from participating in the battle. The illness of Ruqayyah proved fatal, leaving Uthman deeply grieved.
- The Prophet (s) was moved and offered Uthman (ra) the hand of another of his daughters, Umm Kulthum. Because he had the high privilege of having two daughters

- of the Prophet (s) as wives, Uthman (ra) was known as, 'The Possessor of the Two Lights'. (Dhu Al Nurayn).
- Uthman's (ra) most notable contribution to Islam was the compilation of a complete and authoritative text of the Qur'an. A large number of copies of this text were made and distributed all over the Muslim world.
- Uthman (ra) ruled for twelve years. The first six years were marked by internal peace and tranquility, but during the second half of his Caliphate a rebellion arose. Uthman (RA) faced internal problems and trouble.
- After a long siege, the rebels broke into Uthman's (ra) house and murdered him.

Ali Ibn Abi Talib

- After Uthman's martyrdom, the office of the Caliphate remained unfilled for two or three days. Many people insisted that Ali should take up the office, but he was embarrassed by the fact that the people who pressed him hardest were the rebels, and he therefore declined at first. When the notable Companions of the Prophet (peace be on him) urged him, however, he finally agreed.
- Ali (R) was born in Makkah to a noble Quraish family. His father Abu Talib was a leader of Quraish and also Prophet's (peace be upon him) uncle.
- Ali was ten years old when he accepted Islam
- Ali ibn Abi Talib was the first cousin of the Prophet (peace be on him). More than that, he had grown up in the Prophet's own household, later married his youngest daughter, Fatimah, and remained in closest association with him for nearly thirty years.
- Ali (ra) fought in all the early battles of Islam with great distinction, particularly in the expedition of Khaybar.
- The Prophet also gave him the title of 'Asadullah' ('Lion of Allah') due to his courage in battles
- Ali (ra) was also a great scholar of Arabic literature and pioneered in the field of grammar and rhetoric.
- Ali accepted the caliphate very reluctantly. Uthman's murder and the events surrounding it were a symptom, and also became a cause, of civil strife on a large scale.
- Ali felt that the tragic situation was mainly due to inept governors. He therefore
 dismissed all the governors who had been appointed by Uthman (ra) and appointed
 new ones.
- All the governors except Muawiyah, the governor of Syria, submitted to his orders.
- Muawiyah declined to obey until Uthman's blood was avenged.
- The situation in Hijaz (the part of Arabia in which Makkah and Madinah are located) became so troubled that Ali moved his capital to Iraq.
- Muawiyah now openly rebelled against Ali (ra) and a fierce battle was fought between their armies. The main reason of this battle was to take revenge for killing Uthman (RA) and also Muawiyah thought that Ali (RA) was not doing enough to punish the

- murderers of Uthman (RA). This battle known as BATTLE OF SIFFIN was inconclusive. All had to accept the de facto government of Muawiyah in Syria.
- A fanatical group called the Khawarij, consisting of people who had broken away from Ali due to his compromise with Muawiyah, claimed that neither Ali, the Caliph, nor Muawiyah, the ruler of Syria, nor Amr ibn al-'As, the ruler of Egypt, were worthy of rule.
- They vowed to kill all three rulers, and assassins were dispatched in three directions.
- Ibn'e-Muljim, the assassin who was commissioned to kill Ali, accomplished his task. One morning when Ali (ra) was absorbed in prayer in a mosque, Ibn'e-Muljim stabbed him with a poisoned sword.
- With the death of Ali (ra), the first and most notable phase in the history of Muslim people came to an end.

Topic 2: Ushra Mubasharah - Part Two

Talha Ibn Ubaydullah

- He belonged to the same tribe as Abu Bakr Siddiq, Banu Taym.
- He was among the first few people that had accepted Islam.
- After his migration to Madina, he was paired up with Abu Ayyub Al Ansari (r).
- Sa'id Ibn Zayd (ra) and Talha (ra) missed the Battle of Badr because prophet
 Muhammad (s) sent them ahead as scouts to report on the movements of Abu
 Sufyan's caravan. When they heard that they had missed the caravan, they returned
 to Medina, only to find that Muhammad (s) and his army had already reached Badr.
 They set out for Badr and met the returning victorious army. However, Muhammad
 (s) gave them a share of the booty as if they had been present.[2]:329[1]:299-300
 and also the good news that they will get the reward as if they participated in the
 battle.
- After that, he participated in almost all the battles along with Prophet Muhammad (s).
- He is mostly known for his excellence in the Battle of Uhud, in which he was alongside Prophet Muhammad (s), from the beginning to the end of the battle. In fact Prophet Muhammad (s) said that at one point in Battle of Uhud, he (s) saw Jibreel (as) defending him (s) on his right and Talha Ibn Ubaydullah (ra) defending Muhammad (s) on his left.
- In this Battle towards the end, Talha (ra) had suffered multiple wounds on his entire body while bravely shielding Muhammad (s) from the enemies attack, when our dear Prophet(s) was badly injured.
- He stopped an arrow targeted towards our dear Prophet(s) with his right hand and as a result, his hand was paralyzed.
- Prophet (s) mentioned about Talha that he is a walking and a living martyr. Abu Bakar (ra) mentioned later, that day of Uhud was Talha's day, because many people had fled from the side of our Prophet(s), but Talha (ra) was constantly with him.
- He was a very rich merchant and at the same time very generous. Because of his charity he was given several titles by Prophet Muhammad (s), one of which was Al Fayyad.
- Talha (ra) had Named all his sons after the names of Prophets.
- He passed away during the Battle of Camel.

Az Zubayr Ibn Al Awwam

• He was among the five people who had accepted Islam at the hands of Abubakar As Siddiq (ra).

- Zubayr (ra) was around 12 years old when he became a Muslim. At that time, Prophet(s) was preaching Islam privately and thus Zubayr(ra) was one of the youngest attendees of his meetings at Daar Ul Arqam.
- His mother was Safia bint Abdulmuttalib, Prophet(s)'s aunt. Therefore Zubayr and Prophet(s) were first cousins.
- He was persecuted for accepting Islam and tortured by his uncle at a very young age.
- Because of persecution, he was among those who had migrated to Abyssinia and later migrated to Madina. Thus he is among those Muslims who were called Sahib Ul Hijratain.
- He was the first Muslim to unsheathe a sword for the sake of Allah (SWT), in early Makkan time to defend Prophet Muhammad (s).
- In battle of Badar, Zubayr (ra) was one of the two horsemen, in the entire army of the Muslims. He was wearing a yellow turban that day and according to a narration all the angels participating in Badar were wearing yellow turbans as well.
- He is uniquely known for Battle of Khandaq (Trench), where he had volunteered to scout and find out what Banu Quraizah were up to, since they had started showing signs of treason.
- Zubayr (ra) has the honor of being one of the three flag bearers during the conquest of Makkah.
- He played a decisive role in the Battle of Yarmook. This battle opened all of the doors for Byzantine conquests.
- Zubayr (ra) had 11 sons and 9 daughters. He had a philosophy of naming his sons and named all of his sons after various sahabah who were martyrs (shaheed).

Abdur Rahman Ibn Awf

- He was one of the first eight persons to accept Islam and one of the ten companions who were assured of entering Paradise.
- He was also one of the six persons chosen by Umar(ra) to form the council of shura to choose the Khalifah after his death.
- He was born with the name Abdul 'Amr or Abdul Ka'bah, but when he accepted Islam, the noble Prophet (s) called him Abdur-Rahman.
- Abdur-Rahman also migrated twice, first to Abyssinia and later Madina, thus belonging to the group of Sahib Ul Hijratayn.
- He left behind all his wealth for the sake of Allah (SWT) and his Prophet (s) when he migrated from Makkah to Madinah.
- Soon after arriving in Madinah, the Prophet(s) in his unique manner began pairing off the Muhajirin and the Ansar. Abdur-Rahman was paired up by Prophet (s) with Saad ibn ar-Rabi'ah, al Ansari.
- Abdur-Rahman started from scratch in Madinah and with his business skills, became a wealthy man.

- Abdur-Rahman (ra) belonged to the elite group of sahabah to fight at Badr. During Uhud, he valiantly defended the Prophet (s) with his sword and body, sustaining injuries which caused him to limp for the rest of his life.
- One of the most famous incidents in the life of Abdul Rahman ibn Awf occurred when he led the Muslims that included Prophet (s) in salah. During the expedition of Tabuk, the time for Fajr came one day but the Prophet (s) was not with the sahabah. They realized he had gone to answer the call of nature but as they waited, the time for Fajr began ticking away. Knowing the importance of salah, the sahabah beckoned to Abdul Rahman ibn Awf to come forward and lead them in salah. He stepped up and led the sahabah in Salatul Fajr. During the second rak'ah, the Prophet (s) rejoined the sahabah and prayed behind Abdul Rahman, giving him the unique distinction and honor of being the only person to lead the Prophet (s) in prayer.
- At the Battle of Tabuk, he donated generously for the expedition and then spent money equipping those people who were too poor to equip themselves.
- After the demise of the Prophet, Abdul-Rahman took on the responsibility of looking after the needs of "the Mothers of the Faithful", the Prophet's wives. He even performed Hajj with them to ensure that all their needs were met.

Saad Bin Abi Waqqas (ra)

- He belonged from Banu Zuhra clan of the Quraish tribe. AbdulRahman Ibn Awf (ra) and our Prophet(s)'s mother, Amina bint Wahab, were also from the same clan.
- He was born around 17 years before the preaching of Islam.
- Around this age he was among the first few to accept Islam.
- He fought ferociously in Battle of Badr in which his younger brother also participated and died.
- It was at the question of Sa'ad (ra) about the booty of wars (ghanima) to Prophet (s), that the verses of Surah al Anfal were revealed, at the end of the battle of Badar. In these verses, the Muslims were allowed to keep the war booty at the end of the battles. Before Badar, there was no revelation regarding it.
- Saad Bin abi Waqqas was well known for his sharp eyesight. This was especially shown in Battle of Uhud. When Khalid Bin Waleed had double backed and Prophet (s) was left with very few men, Saad (ra) was the first contingent who found our dear Prophet(s) and defended him. Saad (ra) started shooting arrows at the enemy, knocking them down and Prophet (s) was the one providing him with the arrows.
- At the end of Abubakar (ra)'s and beginning of Umar(ra)'s khilafa, Saad Bin abi Waqqas was made the general of the army against Sassanid Persia. This is the greatest legacy of Saad Bin abi Waqqas right after the time of Prophet Muhammad (s). That is he was the leader of all the armed forces that went against what at

- that time, was the single-most powerful, political military entity in the whole world, the Persian empire.
- Saad (ra) was put in charge of conquering Persia.
- Allah (SWT) blessed Saad Bin abi Waqqas to be the one at whose hands, the conquest of Persia occurred.
- First the Battle of Qadisiyah occurred that opened the doors for modern-day Iraq and Iran that were under Sassanid rule. This battle went on for four continuous days.
- After the victory at Qadisiyah, Saad (ra) aimed directly at Ctesiphon (pronounced tesiphon), the capital of Persian empire. The emperor had fled with his family after the news of Qadisiyah reached him and Saad Bin Abi Waqqas after a series of battles, conquered Ctesiphon.
- He was also known as the one whose duas were always responded to.
- He passed away around the age of 82-83 years old.

Saeed Ibn Zayd

- HIs father Zayd Bin Amr Bin Nufayl was one of the Hunafa (rejected idolatry and chose to worship Allah (SWT) alone), who led a righteous life, even before the message of Islam came. He passed away five years before Muhammad (s) was given prophethood.
- Saeed Ibn Zayd, his son, was from Banu adi clan of Quresh tribe. The same clan that Umar Ibn Khattab belonged to.
- Saeed Ibn Zayd accepted Islam at an early age, around 14 or 15 years old.
- He was married to Fatima bint Khattab, who was Umar Bin Khattab's sister.
- She was one of the earliest female converts, probably right after Khadija (ra).
- Saeed Ibn Zayd played a crucial role in the Battle of Yarmook against the Romans.
- He also participated in the conquest of Damascus and was made the governor Of Damascus.
- Later he moved to Kufa and then to Madina and lead an apolitical life. He lived outside of Madina in the Valley Of Ageeq, where he passed away as well.

Abu Ubeidah Amer Ibn Al Jarrah

- Abu Ubaidah belonged to the Qurayshi clan of Banu al-Harith ibn Fihr.
- Abu Ubaydah was one of the first persons to accept Islam. He became a Muslim one day after Abu Bakr (ra).
- He was described as the Amin or trustee of Muhammad's (s) Ummah (the Muslims).

- By character and nature, he was very humble and modest. When it came to war, he
 was as hard as iron. During the battle of Uhud, he lost his two front teeth. It was in
 this battle that two of the iron links of the Prophet's (s) helmet pierced his cheeks.
 Abu 'Ubaydah (r.a.) pulled them out with his teeth. His integrity and honesty were
 unparalleled even amongst the companions of the Prophet (s).
- In the conquest Of Makkah, Abu Ubaidah (ra) was honored by leading and clearing the way for Prophet Muhammad (s) to enter Makkah.
- After the victory of Makkah, a delegate of Christians from Najran came and had a debate about Islam and eventually asked Prophet(s) to send someone who can be a dispute solver, a neutral person for them. Abu Ubaydah was the one who was appointed for this mission by Prophet(s).
- When Muhammad (s) passed away, the matter of his succession took place at Saqifah of Banu Sa'ad. Saqifah is the garden, that is still standing to this day around Masjid Un Nabawi. Abu Ubaidah was there along with Abu Bakr and Umar. Umar said to Abu Ubaidah to stretch forth his hand for caliphate but he refused and said to Abu Bakr to stretch forth his hand to take the pledge of allegiance.
- Abu Ubaydah (ra) is associated with the conquest of Syria. Him and Khalid Bin Waleed are the two main heroes of the conquest of Shaam (the region that is Syria, Jordan, Palestine, Lebanon, parts of Turkey and Israel today).
- Abu Ubaydah (ra) passed away due to a plague that had hit the land of Shaam, where the Muslim forces were stationed.
- Before passing away, Abu Ubaidah (ra) addressed his companions with a special speech, instructing them to keep steadfast in their Islamic duties, to practice good morals, to obey the rulers and, above all, to remember that no one can escape death.

Topic 3: Women of Paradise

Abdullah bin 'Abbas (one of the companions of prophet Muhammad (s)) narrated that one day the Prophet (peace and blessings be upon him) drew four lines on the earth and asked his Companions if they understood what these lines stood for. They respectfully replied that he knew better. He then told them that these lines stood for the four foremost ladies of the universe. They were Khadijah bint Khuwaylid, Fatimah bint Muhammad, Maryam bint Imran, the mother of the Prophet Issa and 'Asia bint Muzahim (the wife of the Pharaoh).

KHADIJAH BINT KHWAYLID (RA)

Khadijah was born in Makkah in the year 556 CE. Her mother's name was Fatimah bint Zayd, and her father's name was Khuwaylid bin Asad. He was a very popular leader among the tribe of Quraysh, and a very prosperous businessman. Khadija married three times and had children from all her marriages. It is commonly agreed that she first married Abu Hala Malak bin Nabash and second 'Atiq bin 'A'idh bin 'Abdullah Al-Makhzumi. With her first husband she had two sons, who were named Hala and Hind. Abu Hala Malak died before his business became a success. With her second husband Atiq, Khadija had a daughter named Hindah. This marriage also left Khadija as a widow. She came to be known by various names among Quraysh: Ameer'at Quraysh (Princess of Quraysh), al-Tahira (The Pure One) and Khadija Al-Kubra (Khadija the Great). It is said that she fed and clothed the poor, assisted her relatives financially and provided marriage portions for poor relations. Khadija was said to have neither believed in nor worshipped idols, even before the message of Islam which was not common for pre-Islam Arabian culture.

Khadija became an extremely successful merchant. It is said that when the Quraysh's trade caravans gathered to embark upon their summer journey to Syria or winter journey to Yemen, Khadija's caravan equaled the caravans of all other traders of the Quraish put together.

Khadija did not travel with her trade caravans; she employed others to trade on her behalf for a commission. Her policy was to employ hardworking, honest and distinguished managers to deal on her behalf as a lot depended on the integrity of the employees who traveled far and wide on her behalf. She exported her goods to far away markets like Syria, and her managers bought goods from those markets to be sold at home.

Khadijah had heard of the integrity, honesty and principled behavior of the Prophet (peace and blessings be upon him) and sent a job offer to him to head her trading caravans. He gladly accepted the offer and started working for her. Khadijah sent him on a business trip to Syria along with one of her trusted servants Maysarah.

Upon returning, Maysara gave accounts of the honorable way that Muhammad had conducted his business, with the result that he brought back twice as much profit as Khadija had expected. Maysarah also relayed that on the return journey, Muhammad (s) had stopped to rest under a tree. A passing monk, Nestora, informed Maysara that, "None but a prophet ever sat beneath this tree." Maysara also claimed that while he stood near Muhammad (s) as he slept, he had observed a cloud above that would protect him from the heat and glare of the sun.

She was deeply moved and impressed by his honesty and truthfulness and started thinking of sending marriage proposal to Muhammad (SAW). His noble character was the reason for why she pursued him.

Marriage to Muhammad

Khadija entrusted a friend named Nafisa Bint Manbah to approach Muhammad (SAW) and ask if he would be interested in marriage. Muhammad (SAW) told Nafisa that he could not afford marriage because he had no money to support a wife. Then she asked him if he would be willing to marry a

beautiful lady from a noble and wealthy family, who was inclined towards marriage with him and who can provide for herself. He asked whom she was referring to; when he learnt her identity he said that he was willing, provided she was willing to marry him. Khadijah' was overjoyed.

The two uncles of the Prophet (peace and blessings be upon him) Hamzah and Abu Talib approached her uncle, 'Umar bin Asad, with the formal proposal. It was accepted and the two families began preparing for the wedding. Halimah As-Sa'diyyah who nursed the Prophet in his infancy was specially invited for the wedding and traveled to Makkah from her village. When she left after the festivities, Khadijah presented her with household goods, a camel and forty goats as an expression of gratitude to the lady who had taken such good care of Muhammad (peace and blessings be upon him) in his infancy. The Prophet (s) was then twenty-five years of age and Khadijah was forty years old.

Khadijah was very blessed in the marriage, and had six children. The first born was a boy named Qasim, who lived only two years. Then she gave birth to her daughters Zaynab, Ruqayyah, Umm Kulthum and Fatima; and lastly, Abdullah who also passed away in childhood.

The four daughters grew up to be faithful and courageous daughters of Islam. The first three daughters died during the lifetime of Muhammad (s) and his beloved daughter Fatimah lived just six months after he passed away.

Becoming the First Musim

When Muhammad reported his first revelation from the Angel Gabriel (Jibril), Khadija was the first person (besides the prophet himself) to convert to Islam.

Khadija was supportive of his prophetic mission, always helping in his work, proclaiming his message and belittling any opposition to his prophecies. It was her encouragement that helped Muhammad (s) believe in his mission and spread Islam. Khadija also invested her wealth in the mission.

When the disbelievers saw that Islam was attracting more and more followers in spite of all their tactics, they decided to declare an open and total political and economic boycott of the clan of Banu Hashim. The Prophet (s), along with Abu Talib and clan members of Banu Hashim and Banu al-Muttalib were forced to withdraw from Makkah and live in She'b Abi Talib, which was a subsection of one of the gorges that ran down to Makkah. This boycott was so severe that innocent children faced starvation and hunger, and adults survived eating the leaves of trees. Yet the firm followers of Muhammad (s) did not turn away from their true religion. Khadijah who had been brought up in luxury in her wealthy father's home now faced the economic hardships with patience and courage. Khadijah's nobility of character and conduct pleased Allah, so much that He sent special greetings for her through Angel Jibril.

Her Death

Khadija (ra) died shortly after the boycott was lifted. She is said to have been about sixty-five years old at the time of her death. She had been Muhammad (s)'s wife, companion in faith and most reliable support for over 25 years.

The prophet (s) honored Khadija even after her death. If a gift was sent to him, he would send a share to women who had been Khadija's friends.

Ibn Kathir, the Islamic scholar and commentator on the Qur'an, writes in his book Wives of the Prophet Muhammad (s):

"Khadija had been the first to publicly accept Muhammad (s) as the Messenger of Allah, and she had never stopped doing all she could to help him. Love and mercy had grown between them, increasing in quality and depth as the years passed by, and not even death could take this love away. Muhammad (s) never stopped loving Khadija, and although he married several more wives in later years and loved them all equally, it is clear that Khadija always had a special place in his heart."

Aisha, one of the wives of the prophet (s), asked him once if Khadija had been the only woman worthy of his love. Muhammad (s) replied: "She believed in me when no one else did; she accepted Islam when

people rejected me; and she helped and comforted me when there was no one else to lend me a helping hand." It had been related by Abu Hurairah that on one occasion, when Khadija was still alive, Jibril came to Muhammad (s) and said, "O Messenger of Allah, Khadija is just coming with a bowl of soup (or food or drink) for you. When she comes to you, give her greetings of peace from her Lord and from me, and give her the good news of a palace of jewels in the Garden, where there will be neither noise nor tiredness." After Prophet's uncle, Abu Talib, and his first wife, Khadija, had both died in the same year, he and his small community of believers endured a time of great hardship and persecution at the hands of the Quraish. Indeed the Prophet (s), who was now fifty years old, named this year 'the Year of Sorrow'.

ASIYA BINT MUZAHIM

Asiya (Arabic: آسية), also known as Asiya bint Muzahim, is revered by Muslims as one of the greatest women of all time. She was the wife of the Pharaoh (in Arabic pronounced "Fir'awn"), who reigned during Prophet Musa's time.

Asiya's greatness is in the fact that although she was the wife of one of the most Powerful, arrogant and tyrant rulers of Egypt, she was able to see and accept the truth in message of Prophet Musa (as). For her, wealth, beauty or status was not the main criterion of human excellence; she realized that without faith in one true God, a human being has nothing. Asiya bint Muzahim had declared her faith in the message of God after witnessing the miracle of Musa (as) in the Court of Pharaoh; and after witnessing the death of another believing, woman under torture. The Qur'an chronicles her as a great person and she is respected all the more by Muslims as she was married to one of the most evil men in history, but never lost faith in God and remained steadfast in prayer and belief. Pharaoh tried to turn her away from the God and sought her mother's help. But Asiya refused to reject the one true God. On Pharaoh's order, she was tortured to death.

The holy Qur'an has presented Asiya bint Muzahim as one of the best role models for women. And Allah has set forth an example for those who believe, the wife of Fir'aun (Pharaoh), when she said: "My Lord! Build for me a home with You in Paradise, and save me from Fir'aun (Pharaoh) and his work, and save me from the people who are Zalimoon (polytheists, wrong-doers and disbelievers in Allah). [66:11]

According to a Hadith, she will be among the first women to enter Paradise because she accepted Musa's monotheism over Pharaoh's beliefs.

In this lady, we see the example of supreme sacrifice. By marrying Pharaoh, Asiya bint Muzahim became the Queen of Egypt, she gained everything that she wanted in this worldly life from the materialistic point of view: the best of clothes, food, palaces, jewels, servants and maids, etc. But she sacrificed all that to be closer to Allah. And that is why we see her included by the Prophet in the list of the four women who attained the level of perfection.

FATIMA BINT MUHAMMAD

She was the youngest daughter of the Prophet (peace and blessings be upon him). She was born in Makkah a few years before her father was granted Prophethood. Following the birth of Fatimah, she was personally nursed, contrary to local customs where the newborn were sent to "wet nurses" in surrounding villages. She spent her early youth under the care of her parents in Mecca in the shadow of the tribulations suffered by her father at the hands of the Quraysh.

When she was five, she heard that her father had become Rasul Allah, the Messenger of God. His first task was to convey the good news of Islam to his family and close relations. They were to worship God

Almighty alone. Her mother Khadija, who was a tower of strength and support, explained to Fatimah what her father had to do. From this time on, she became more closely attached to him and felt a deep and abiding love for him. Often she would be at Iris side walking through the narrow streets and alleys of Makkah, visiting the Kabah or attending secret gatherings of the early Muslims who had accepted Islam and pledged allegiance to the Prophet.

HER TITLES:

Fatimah is given many titles by Muslims to show their admiration of her moral and physical characteristics. The most used title is "al-Zahra", meaning "the shining one", and she is commonly referred to as Fatimah Zahra. She was also known as "al-Batul" (the chaste and pure one) as she spent much of her time in prayer, reciting the Qur'an and in other acts of worship.

She fought like a courageous little tigress to defend her father and protect him. She would stand in front of him to shield him from the attacks of his bitter opponents like Abu Jahl, Utbah and Shaybah. On one occasion, the Prophet (peace and blessings be upon him) went into the sanctuary of Makkah with some of his companions and started to pray, the disbelievers had just then sacrificed a camel. The filth and bowels of the camel were lying there, when a horrible idea came to Abu Jahl. He asked who among his friends would like to lift all that filth and pile it on the back of Muhammad (peace and blessings be upon him) 'Uqbah bin Abi Mu'it, the lowest of the low among his friends, said he would perform the task. And he lifted up the bloody filthy mess and piled it on the Prophet's back while he was in the act of prostrating before Allah. All of them then broke into peals of uncontrollable devilish laughter. When news of this act reached Fatimah, she rushed to the sanctuary. Removing with her little hands the impurity, furious at the brutal treatment given to her beloved father, she scolded the disbelievers. When the Prophet (peace and blessings be upon him) finished his prayers, he lifted his hands in supplication and appealed to Allah to hold these men, Abu Jahl bin Hisham, Shaybah bin Rabi'ah, Uqbah bin Abi Mu'it and Umayyah bin Khalaf, in His relentless grip. The men became very nervous because they knew that any supplication made at the sanctuary in Makkah is never rejected by Allah Almighty. And the Prophet's prayers were answered.

When Fatimah was eighteen years old, prominent personalities started proposing for her, but the Prophet (peace and blessings be upon him) said he was waiting for a sign from Allah. Ali, Prophet's cousin, also had a desire to marry Fatimah. When he went to see the Prophet (s), he could not vocalize his intention but remained silent. Muhammad understood the reason for his being there and prompted Ali to confirm that he had come to seek Fatimah in marriage. Ali answered that he had. The Prophet (peace and blessings be upon him) asked Fatimah what she thought of the proposal. She started to weep silently. He then told her that 'Ali was a learned, kind-hearted and brave young man. Fatimah accepted her father's decision. He then asked 'Ali if he had some money for the dowry. 'Ali replied that the Prophet (peace and blessings be upon him) had seen his life from the cradle and knew his financial position very well. Then the Prophet (peace and blessings be upon him) asked him where his shield was, and said that would be the dowry for Fatimah. 'Ali sent it to the market with his slave to be sold and got four hundred Dirhams for it. This he gave to the Prophet (peace and blessings be upon him) who asked him to keep the money and buy some things for the house. Some basic things were purchased for the house to which 'Ali and Fatimah moved after their marriage. A bed, a pillow filled with the leaves of dried date palm, a plate, a glass, a water bag and a grinding stone, these were the few things with which the daughter of the Prophet (peace and blessings be upon him) set up her new home. The house that was available was guite a distance from the Prophet's Mosque. The Prophet (peace and blessings be upon him) wished his daughter could live closer to him, so that he could see her daily. When one of the Companion Harithah bin Nu'man Ansari, came to know of this he approached the Prophet (peace and blessings be upon him) very respectfully, saying he had a number of houses close to the Prophet's Mosque and he was welcome to choose any one of them. This would make that particular house dearer to him. The Prophet (peace and blessings be upon him) was very moved by this

offer and chose one for Fatimah. Ali and Fatimah moved in and started the routine of daily life. It was usual for her to grind the wheat, fetch water from the well and cook their meals.

Since she was not very healthy, Fatimah used to get very tired with all this hard work. Fatimah went to see her father and request him for some help. He told her that he would give her something much better than a slave girl. And he taught her some phrases in praise of Almighty Allah. These, he said, were better than any maid. And he taught her to recite thirty-three times Subhanallah (Glory be to Allah), thirty-three times Alhumdulillah (All praise is for Allah), thirty-four times Allah-u-Akbar (Allah is the greatest).

Fatimah spent her entire life as a pious servant of Allah, always patient and grateful to Allah (SWT), there was not a word of complaint from her, however difficult the circumstances. There are many reports of the hard and difficult times which Fatimah had to face. Often there was no food in her house. It is reported that the Prophet (s), out of hunger, and not finding food at any of his wives' houses, approached Fatimah's house. She had no food either. When he eventually got some food, he sent two loaves and a piece of meat to Fatimah. At another time, he went to the house of Abu Ayyub al-Ansari and from the food he was given, he saved some for her. Fatimah also knew that the Prophet was without food for long periods and she in turn would take food to him when she could. Once she took a piece of barley bread and he said to her: "This is the first food your father has eaten for three days." The world and its attractions held no charm for her. In the battles she was at the front nursing the wounded and the sick. When her father was injured in the battle of Uhud, it was she who burnt a part of a straw mat and used its ashes to stem the flow of blood. There is a narration in Sahih Al-Bukhari that when the Prophet (peace and blessings be upon him) was asked at one occasion, whom he loved best in the world. He named his youngest daughter, Fatimah. HER PASSING AWAY:

One morning, early in the month of Ramadan, just less than five month after her noble father had passed away; Fatimah woke up looking unusually happy and full of mirth. In the afternoon of that day, it is said that she called Salma bint Umays who was looking after her. She asked for some water and had a bath. She then put on new clothes and perfumed herself. She then asked Salma to put her bed in the courtyard of the house. With her face looking to the heavens above, she asked for her husband Ali. He was taken aback when he saw her lying in the middle of the courtyard and asked her what was wrong. She smiled and said: "I have an appointment today with the Messenger of God."

Ali cried and she tried to console him. She told him to look after their sons al-Hasan and al-Husayn and advised that she should be buried without ceremony. She gazed upwards again, then closed her eyes and surrendered her soul to the Mighty Creator.

She, Fatimah the Resplendent One, was just twenty nine years old. Fatimah was survived by two sons, Hasan and Husayn, and two daughters, Zaynab and Umm Kulthum.

MARYAM BINT IMRAN

For women, for all time to come, Allāh has mentioned Maryam Bint `Imran, a pious woman from the Bani Israel, as an example serving to be a beacon of light highlighting positive feminine characteristics and modest character.

Her name is Maryam Bint Imran Ibn Mathan. During her lifetime, the Bani Mathan were the leaders of children of Israel. She came from the lineage of Prophet Dauood (as). Her mother's name was Hannah bint Faqudh who was married to Imran, a leader of Israelites. They remained childless for many years, but they never lost hope that one day Allah (swt) would bless them with a child. She prayed and her request was granted. When she prayed, she intended to offer her child in the service of Allah's house, the temple of Jerusalem (Bait Al-Magdas).

She gave birth to a girl, and turned to Allah in prayer: "O my lord, I have given birth to a female child and Allah knew better what she bore". She named her daughter Maryam. Maryam grew under Allah's special protection and He made her grow in a good manner and put her under the care of Zakaria who was a prophet of Allah. Maryam's earliest education was set at the place where her father used to lead the congregational prayer (i.e., before his death during her mother's pregnancy with her). Islamic commentators on the life of Maryam describe her upbringing in Masjid al-Aqsa, "The Farthest Mosque", which encircles the Dome of the Rock, a shared monotheistic holy site in Jerusalem. Allah made Maryam accompany the righteous people so that she would learn righteousness and knowledge. She was one of the female worshippers known for her remarkable acts of worship, devotion and perseverance. Every time Zakaria entered her room to visit her, he found her supplied with sustenance and would find fruits of summer during winter and fruits of winter during summer. When Zakaria would ask, where did she get all this from? She would answer: "This is from Allah (swt). No doubt Allah provides to whom He wills without limit."

She was chosen and purified by Allāh - chosen over women of all the worlds

The angels said: "O Maryam Behold, Allāh has elected you and made you pure, and raised you above all the women of the world. [al-Quran Chapter 3, Ayah 42]

She was told to be obedient towards Allāh; to prostrate and bow (in worship) along with the (other) worshippers. Maryam was chosen for devout worship during an era when only men did this - dedicated their lives to Allāh's worship - in the synagogue. As the first command to Maryam, she was commanded by Allah through the angels to increase acts of worship, humbleness, submission, prostration, bowing, so that she would acquire what Allah had decreed for her.

She was given glad tidings of offspring who would be honorable in the world and among Allāh's near ones in the hereafter. He would be Isa ibn Maryam, a prophet of Allah. She and her son were made a clear proof or sign for all the worlds. Her son spoke in his cradle and performed other miracles with Allāh's permission.

In Surah Al- Maidah, Allāh calls Maryam Bint `Imran a "Siddeeqa", which means "a truthful woman who also confirms the truth of something; testifies that something is true". By believing in Allāh's words and His Divine Books, she confirmed the truth of His scriptures, and proved that she confirmed them by dedicating her time to worship of her Creator.

Prophet Muhammad (Peace Be Upon Him) said: "The greatest women (in her time) was Maryam (Mary), the daughter of Imran, and the greatest women (at the time of Prophet) is Khadijah, (his wife), the daughter of Khuwaylid."

According to one Hadeeth, the Messenger of Allah Prophet Muhammad (Peace Be Upon Him) said: Many men achieved full faith but from the women, Maryam (Mary) the daughter of Imran and Aasiya, the wife of Pharaoh, have achieved the fullness of faith.

<u>Topic 4: Muslim Contributions to Mathematics, Science and Medicine</u>

Mathematics

The Islamic Empire established across Persia, the Middle East, Central Asia, North Africa, Iberia and parts of India from the 8th Century onwards made significant contributions towards mathematics. They were able to draw on and fuse together the mathematical developments of both Greece and India.

One consequence of the Islamic prohibition on depicting the human form was the extensive use of complex geometric patterns to decorate their buildings, raising mathematics to the form of an art. In fact, over time, Muslim artists discovered all the different forms of symmetry that can be depicted on a 2-dimensional surface.

Mohammad Bin Ahmed in the tenth century invented the concept of zero or "cipher". Additionally, they invented the symbol to express an unknown quantity, i.e. variables like x. Thus replacing the cumbersome Faruqi 395 Roman numerals and creating a revolution in mathematics. This led to advances in the prediction of the movement of the planets and advances in the fields of astronomy and geography.

The first pioneer Muslim mathematician, Al-Khawarizmi, invented the subject of algebra and wrote the first book of algebra which was further developed by others. Al-Khowarizmi emphasized that he wrote his algebra book to serve the practical needs of the people concerning matters of inheritance, legacies, partition, lawsuits and commerce. Al-Khawarizmi's work, in Latin translation, brought the Arabic numerals along with the mathematics to Europe, through Spain. The word "algorithm" is derived from his name. Mathematicians used his findings all over the world until the sixteenth century.

Muhammad Ibn Jabir Ibn Sinan Abu Abdullah, the father of trigonometry, was born in Battan, Mesopotamia and died in Damascus in 929 CE. An Arab prince and governor of Syria, he is considered to be the greatest Muslim astronomer and mathematician.

Muslim mathematicians excelled also in geometry, as can be seen in their graphic arts, and it was the great Al-Biruni (who excelled also in the fields of natural history, even geology and mineralogy) who established trigonometry as a distinct branch of mathematics. Six hundred years before Galileo, Al-Biruni discussed the theory of the earth rotating about its own axis. Al-Biruni carried out measurements to determine the shortest distance between objects in space and determined the earth's circumference. With the aid of mathematics, he enabled the direction of the Qibla to be determined from anywhere in the world.

Science

The 7th to the 13th century was the golden age of Muslim learning. Of all the subjects developed by the Muslims in this period, there was none brought to more perfection than science. In fact, in this field, their successes were such as to have no parallel in history. They distinguished themselves in the fields of astronomy, mathematics, physics, chemistry, medicine, etc. The Muslims arriving at the correct hypothesis of the solar system's functioning was made possible only because Islam had broken down the walls of conditioned thinking which had acted as a barrier to man's intellectual progress. As soon as this artificial barrier was out of the way, the caravan of human thought began to move on its journey with a rapid pace. And thus it brought us finally to the spectacular scientific feats of the present century.

Muslim scholars played an extraordinary role in the development of scientific thinking in the Middle Ages. It argues that the Muslims were not just the preservers of the ancient and Greek knowledge, but that they contributed original works to the different fields of science. They were inspired by the Islamic view of nature that is, mankind had a duty to 'study nature in order to discover God and to use nature for the benefit of mankind'. This knowledge was transferred to

Western Europe and subsequently played an important role in revitalizing a climate of learning and exploration in Europe, leading to the Renaissance in the sixteenth and seventeenth centuries

I. Astronomy

Muslims have always had a special interest in astronomy. The moon and the sun are of vital importance in the daily life of every Muslim. By the moon, Muslims determine the beginning and the end of the months in their lunar calendar. By the sun the Muslims calculate the times for prayer and fasting. It is also by means of astronomy that Muslims can determine the precise direction of the Qiblah, to face the Ka'bah in Makkah, during prayer. The most precise solar calendar, superior to the Julian, is the Jilali, devised under the supervision of Umar Khayyam. The Qur'an contains many references to astronomy. These references, and the injunctions to learn, inspired the early Muslim scholars to study the heavens. They integrated the earlier works of the Indians, Persians and Greeks into a new synthesis. Muslim astronomers were the first to establish observatories, like the one built at Mugharah by Hulagu. In Persia, Muhammad al-Fazari developed instruments such as the quadrant and astrolabe, which led to advances not only in astronomy but in oceanic navigation, contributing to the European age of exploration and finding the direction of the Qiblah.

The astronomer who is said to have studied the solar system and presented the heliocentric theory (which states the sun is at the center of universe) for the first time was a Greek, known by the name of Aristarchus of Samos. He died in 270 BC. However, this theory of the sun being at the center, and of the earth revolving around it, never gained popularity in those early times. The Christians believed that the earth was a sacred sphere, being the birthplace of the Jesus. Because of this belief, they found the notion that the earth was the center around which the whole universe revolved exactly in accordance with their religious beliefs. It was this idea of the earth's sacredness which came in the way of the Christians making any further investigation. But it was the Muslims, who first transferred to Europe the concept of the earth being round and the almost correct concept of the causes of the ebb and flow of the tides and the heliocentric theory developed by Aristarchus (310-320 BC), although destined to fall into oblivion for four hundred years, has today become an established fact.

Galileo is generally considered to be the inventor of the telescope. But the truth is that long before his time, Abu Ishaq ibn Jundub (d.767) had already made observations of the heavens. He had devised certain rules for observing distant objects and, in accordance with those rules, he had invented a telescopic instrument. It was this initial telescope which was further developed by Galileo, and which was the actual forerunner of the now highly perfected electric telescope of modern time.

II. Geography

Muslim scholars paid great attention to geography. In fact, the Muslims' great concern for geography originated with their religion. The Qur'an encourages people to travel throughout the earth to see God's signs and patterns everywhere. Islam also requires each Muslim to have at least enough knowledge of geography to know the direction of the Qiblah to pray five times a day. Muslims were also used to taking long journeys to conduct trade as well as to make the

Hajj and spread their religion. The far-flung Islamic empire enabled scholar-explorers to compile large amounts of geographical and climatic information from the Atlantic to the Pacific. Among the most famous names in the field of geography, even in the West, are Ibn Khaldun and Ibn Batuta, renowned for their written accounts of their extensive explorations. In 1166, Al-Idrisi, the well-known Muslim scholar who served the Sicilian court, produced very accurate maps, including a world map with all the continents and their mountains, rivers and famous cities. The maps by Al-Idrisi were produced in Sicily and are regarded as the most elaborate and complete description of the world made in medieval times. It was used extensively by travelers for several centuries and contained detailed descriptions of the Christian north as well as the Islamic world, Africa and the Far East.

The astrolabe, the quadrant, and other navigational devices and maps were developed by Muslim scholars and played an important role in world progress, most notably in Europe's age of exploration. It was with the help of Muslim navigators and their inventions that Magellan was able to traverse the Cape of Good Hope, and Columbus had Muslim navigators on board his ships.

III. Humanity

Seeking knowledge is obligatory in Islam for every Muslim, man and woman. The main sources of Islam, the Qur'an and the Sunnah (Prophet Muhammad's (S) traditions), encourage Muslims to seek knowledge and be scholars, since this is the best way for people to know Allah (God), to appreciate His wondrous creations and be thankful for them. Muslims were therefore eager to seek knowledge, both religious and secular, and within a few years of Muhammad's (S) mission, a great civilization sprang up and flourished. The outcome is shown in the spread of Islamic universities: Al-Zaytunah in Tunis, and Al-Azhar in Cairo go back more than 1,000 years and are the oldest existing universities in the world. Indeed, they were the models for the first European universities, such as Bologna, Heidelberg, and the Sorbonne. Even the familiar academic cap and gown (that many graduating students can be seen wearing) originated at Al-Azhar University.

Muslim scholars studied the ancient civilizations from Greece and Rome to China and India. The works of Aristotle, Ptolemy, Euclid and others were translated into Arabic. Muslim scholars and scientists then added their own creative ideas, discoveries and inventions, and finally transmitted this new knowledge to Europe, leading directly to the Renaissance. Many scientific and medical treatises, having been translated into Latin, were standard text and reference books as late as the 17th and 18th centuries.

IV. Chemistry

Jabir ibn Hayyan (721-815) is ranked greatest in the field of medieval chemical science. He more clearly recognized and stated the importance of experimentation than any other early scientist of chemistry, and made noteworthy advances in both the theory and practice of chemistry. He also introduced the experimentation as scientific method for chemistry and invented more than twenty types of medical apparatus.

Jabir's books were held as the final authority on chemistry in Europe until the fifteenth century. The initial ladder to the modern western chemistry of the eighteenth century was produced by

Jabir. It is believed that Jabir wrote two thousand books on different sciences. So many scholarly books had never been written before by any single writer.

Medicine

The science of medicine came into being in ancient Greece about 200 years before the Christian era and flourished for another two centuries. In this way, the whole period extended over about four or five hundred years. This science did not see any subsequent advance in Greece itself. Although a European country, Greece did not contribute anything to the spread of its own medical science in Europe, or to modern medicine in the West. These facts are proof that the atmosphere in ancient Greece was not favorable to the progress of medicine. The Greek medicine which was brought into being by certain individuals (effort was all at the individual level, as the community did not give it general recognition) remained hidden away in obscure books for about one thousand years after its birth. It was only when these books were translated into Arabic during the Abbasid period (750-1258), and edited by the Arabs with their own original additions, that it became possible for this science to find its way to Europe, thus paving the way for modern medical science.

In Islam, the human body is a source of appreciation, as it is created by Almighty Allah (God). How it functions, how to keep it clean and safe, how to prevent diseases from attacking it or cure those diseases, have been important issues for Muslims.

Prophet Muhammad himself urged people to "take medicines for your diseases", as people at that time were reluctant to do so. He also said: "God created no illness, but established for it a cure, except for old age. When the antidote is applied, the patient will recover with the permission of God."

This was strong motivation to encourage Muslim scientists to explore, develop, and apply empirical laws. Much attention was given to medicine and public health care. The first hospital was built in Baghdad in 706 AC. The Muslims also used camel caravans as mobile hospitals, which moved from place to place. The first hospital in Baghdad was founded on the initiative of the Caliph Harun al Rashid.

Since the religion did not forbid it, Muslim scholars used human cadavers to study anatomy and physiology and to help their students understand how the body functions. This empirical study enabled surgery to develop very quickly.

The first important physician was Al-Razi, known in the West as Rhazes, the famous physician and scientist, was one of the greatest physicians in the world in the Middle Ages. He stressed observation and clinical medicine and was unrivaled as a clinician. His greatest work, *Al-Havi*, was translated into Latin as the *Continens*, (the comprehensive book). It was the first encyclopedia of all medical science up to that time, and had to be completed by his disciples after his death. For each disease, he gave the views of Greek, Syrian, Indian, Persian and Arabic authors, and then added notes on his clinical observations and expressed a final opinion. Researchers have accepted that he wrote first medical book on smallpox in the whole of recorded history. Prior to this, no one had ever done research on this topic which ultimately laid the foundation for the cure for smallpox. Al-Razi also included in his studies ideas involving

human behavior and he was a pioneer in the field of psychology, thus removing the theories of demons and witchcraft associated with these diseases in the Christian world.

Khalaf Abul-Qasim Al-Zahrawi was a very famous surgeon in the eleventh century. He was often called the "father of surgery" and wrote an illustrated encyclopedia that would ultimately be used as a guide to European surgeons for the next five hundred years. Al-Zarawhi's surgical instruments, such as scalpels, bone saws, and forceps are still used by modern surgeons. Ibn Sina, better known to the West as Avicenna, was perhaps the greatest physician until the modern era. His famous book, Al-Qanun fi al-Tibb or *Canon of Medicine*, remained a standard textbook even in Europe, for over 700 years. Ibn Sina's work is still studied and built upon in the East. he established free hospitals and developed treatments for diseases using herbs, hot baths, and even major surgery.

Another significant Muslim discovery came in the 13th century, when the Muslim medic Ibn Nafis described the pulmonary circulation almost three hundred years before William Harvey, the English physician who is believed by many Westerners to have "discovered" it. The technique of inoculation, or the introduction of a vaccine into the body to induce immunity or protection to a disease, is also said to have been designed by Muslims in Turkey and brought to Europe by the wife of England's Turkish ambassador in 1724.