2025年高考英语专练-语法填空之宇宙探索

航空航天

Passage 1

（2024·上海实验中学·模考）China, with her ambitious space program, is now on the point of turning her widest dream into reality. Recent breakthroughs in lunar soil research ____1____ (pave) the way for potential lunar base construction, a feat that could revolutionize our understanding of space and its potential for human settlement. The Chinese lunar exploration program has been strategic, with each mission ____2____ (build) upon the last to deepen our knowledge of Earth's nearest neighbor. However, it is the latest research on the lunar soil ____3____ has truly opened doors to the future.

Chinese researchers have discovered a method to extract water from lunar soil through a high-temperature reaction. This process involves heating the soil to temperatures above 1000°C, causing the hydrogen stored in the soil due to solar wind irradiation over millions of years____4____ (react) with iron oxides, producing elemental iron and a significant amount of water. This discovery is crucial ____5____ it suggests that 1 ton of lunar soil could yield approximately 50 kilograms of water, enough to sustain the daily water needs of 50 people.

The implications of this research are profound. Water is not only vital for human survival but is also a key component for producing oxygen and rocket fuel. With this method, a sustainable supply of water could be harnessed on the moon, greatly facilitating the establishment of a lunar research station and potentially a ____6____ (permanent) base.

The strategy proposed by the research team involves melting the lunar soil to produce water vapor. The leftover iron could be used for ____7____ (manufacture) magnetic materials, and the soil ____8____ (melt) could serve as a building material for infrastructure. This method is a game-changer, reducing the need to transport materials from Earth and making lunar construction more feasible.

China's vision for a lunar base extends____9____ scientific research. It is about establishing a foothold for humanity in the cosmos, a stepping stone for deeper space exploration. The Chinese space agency has already outlined plans for an international lunar research station by 2030, ____10____ will involve the construction of facilities for multidisciplinary research and technological verification. The journey from research to base construction is undoubtedly full of challenges, but the prospect of China's lunar base is promising.

【答案】

1．have paved　2．built　3．that　4．to react　5．because/as　6．permanent　7．manufacturing　8．melted/molten　9．to　10．which

【导语】本文是一篇说明文。主要介绍了中国在月球土壤研究方面的突破及意义。

1．考查动词时态。句意：最近在月球土壤研究方面的突破为潜在的月球基地建设铺平了道路，这一壮举可能会彻底改变我们对太空及其人类定居潜力的认识。设空处为句子的谓语，强调过去的动作对现在的影响，应该用现在完成时，主语 breakthroughs，结合主谓一致，故填 have paved。

2．考查 with 的复合结构。句意：中国的探月计划具有战略意义，每次任务都建立在上一次任务的基础上，以加深我们对地球最近邻居的了解。分析句子的结构可知，该句为 with 的复合结构，“with+宾语+宾补”的结构，each mission 与 build 之间为被动关系。故填 built。

3．考查强调句。句意：然而，对月球土壤的最新研究才真正打开了通往未来的大门。分析句子的结构可知，该句为强调句：It+is+被强调部分+that+其他部分，该句强调主语 the latest research on the lunar soil，故填 that。

4．考查动词。句意：这个过程包括将土壤加热到 1000 摄氏度以上，使土壤中由于数百万年的太阳风照射而储存的氢与氧化铁发生反应。固定短语 cause…to do sth 使……做某事。设空处应用动词不定式的形式作宾补，故填 to react。

5．考查连词。句意：这一发现是至关重要的，因为它表明一吨月球土壤可以产生大约 50 公斤的水，足以满足 50 人的日常用水需求。设空处引导原因状语从句，表示“因为”，故填 because/as。

6．考查形容词。句意：通过这种方法，可以在月球上利用可持续的水供应，极大地促进了月球研究站和永久基地的建立。设空处为形容词的形式修饰空后的名词。故填 permanent。

7．考查非谓语动词。句意：剩下的铁可以用来制造磁性材料，融化的土壤可以作为基础设施的建筑材料。设空处为非谓语形式作宾语，空前为介词 for，设空处为动名词的形式作宾语。故填 manufacturing。

8．考查非谓语动词。句意：剩下的铁可以用来制造磁性材料，融化的土壤可以作为基础设施的建筑材料。根据上句“The strategy proposed by the research team involves melting the lunar soil to produce water vapor. (研究小组提出的策略包括融化月球土壤以产生水蒸气。)”可知，设空处指的是融化的土壤。此处用过去分词作后置定语，故填 melted/molten。

9．考查介词。句意：中国对月球基地的愿景延伸到了科学研究。extend to 扩展到。故填 to。

10．考查定语从句的引导词。句意：中国航天局已经概述了到 2030 年建立国际月球研究站的计划，这将涉及建设多学科研究和技术验证的设施。设空处引导非限制性的定语从句且在句中作指物的主语，先行词为 plans。故填 which。

Passage 2

（2024·上海奉贤·一模）The First Space Cat

In a few weeks, space scientists will celebrate a remarkable event — the 60th anniversary of the launch of the first cat into space, an astronautical success that has never been repeated.

In the early 60s, dogs and monkeys were the animals usually used by scientists to find out exactly _____1_____ dangerous the conditions were in outer space. And they were also used to assess if humans _____2_____ survive trips beyond the edge of Earth's atmosphere.

A total of 14 street cats _____3_____ (gather) at France's space agency for selection as cat astronauts, but the cats were not given names on purpose in order to prevent scientists from becoming too fond of them. The cat selected to travel to space was simply known _____4_____C341. C341 flew on a French rocket in October 1963, taking it to a place 5____no cat had gone before.

Then, _____6_____the news of its flight was announced on 18 October 1963, the French press decided this cat had to have its name. They picked "Felix" after a cartoon cat character, only _____7_____ (discover) that C341 was female, so her name was then adjusted to "Felicette" as a result. In putting Felicette in one of its rockets, France added a new species to the list of animals that scientists _____8_____ (send) into space before. Previously, two garden spiders, Anita and Arebella, had been taken to the Skylab _____9_____(orbit) around the moon.

"In the 60s, _____10_____(concern) about the possible danger for a human to be in outer space, scientists and engineers primarily undertook animal space flights to see if they suffered or their lives were threatened by the weightlessness or increased radiation or other effects they might experience up there," said astronomer Jake Foster at the Royal Observatory Greenwich. "The fact that they did not fail paved the way for humans to begin journeys into space."

【答案】

1．how　2．could　3．were gathered　4．as　5．where　6．after　7．to discover　8．had sent　9．orbiting　10．concerned

【导语】这是一篇说明文。文章主要说明了第一只太空猫的相关情况。

1．考查宾语从句。句意：上世纪 60 年代初，科学家们通常用狗和猴子来探测外太空的危险程度。引导宾语从句，此处从句表示“多么危险”应用 how dangerous。故填 how。

2．考查情态动词。句意：它们还被用来评估人类是否能在地球大气层边缘以外的旅行中生存下来。后跟动词原形，根据上文 were 可知表示“能够”应用 could。故填 could。

3．考查时态语态。句意：法国航天局共挑选了 14 只流浪猫作为猫宇航员，但为了防止科学家们过于喜欢它们，这些猫没有被命名。主语与谓语构成被动关系，根据后文 were 可知为一般过去时的被动语态，谓语用复数。故填 were gathered。

4．考查介词。句意：被选中去太空旅行的猫被简单地称为 C341。短语 be known as 表示“被称为”。故填 as。

5．考查定语从句。句意：1963 年 10 月，C341 乘坐法国的一枚火箭飞到了一个以前没有猫去过的地方。定语从句修饰先行词 place，在从句作地点状语，用 where。故填 where。

6．考查状语从句。句意：1963 年 10 月 18 日，在它飞行的消息公布后，法国媒体决定给这只猫取个名字。引导时间状语从句，表示“在……之后”应用 after。故填 after。

7．考查非谓语动词。句意：他们选择了卡通猫的名字“Felix”，却发现 C341 是雌性，因此她的名字被调整为“Felicette”。此处为 only to do sth.，不定式作结果状语。故填 to discover。

8．考查时态。句意：在将 Felicette 放入其中一枚火箭后，法国在科学家之前送入太空的动物名单上增加了一个新物种。此处从句表示过去的过去，应用过去完成时。故填 had sent。

9．考查非谓语动词。句意：此前，两只花园蜘蛛，安妮塔和阿雷贝拉，已经被带到绕月轨道运行的太空实验室。分析句子结构可知 orbit 与逻辑主语 Skylab 构成主动关系，故用现在分词作定语。故填 orbiting。

10．考查非谓语动词。句意：格林尼治皇家天文台的天文学家杰克·福斯特说：“上世纪 60 年代，由于担心人类在外太空可能面临的危险，科学家和工程师主要对动物进行了太空飞行，看看它们是否会因失重或辐射增加或其他可能受到的影响而受到伤害或生命受到威胁。”短语 be concerned about 表示“担心”，此处过去分词作状语。故填 concerned。

天体和宇宙

Passage 1

（2024·上海普陀·期中）“It was written in some sense,” Cynthia, ____1____ is a professor of physics at McGill University, would end up in observational cosmology — the study of the origin and development of the universe using specialized detectors and telescopes. “I’m not going to lie. My father is a physicist and my mother _____2_____ astronomer. But no kid wants to be like ____3____ (they) parents,” she joked, semi-seriously.

Cynthia always enjoyed building things. She _____4_____ (spend) spare time experimenting with her father’s research equipment when she was a child. She thanks, in part, her short attention span (持续时间) for her natural ____5____ (curious): “I am always looking for something.”

For the last few years, Cynthia has been looking for signs of the universe’s early existence, ____6____ the birth of the first stars more than 13 billion years ago, to the previous “cosmic dark ages”. _____7_____ (achieve) the purpose, she’s made her own equipment. As a professor of physics, she focuses on peering (观测) beyond the universe as it is known today, into its ____8____ (distance) past, using novel radio technology.

Since 2017, Cynthia and her team at McGill have been engineering and planting radio telescopes in two of the Earth’s most remote and ____9____ (quiet) places for the best shot at ____10____ (hear) the earliest groans (声音) of the cosmos.

【答案】

1．who　2．an　3．their　4．spent　5．curiosity　6．from　7．To achieve　8．distant

9．quietest　10．hearing

【导语】本文是一篇说明文。物理学教授 Cynthia 自 2017 年以来带领团队持续观测宇宙形成初期的迹象。

1．考查定语从句。句意：“这是在某种意义上写的，”Cynthia 是麦吉尔大学的物理学教授，她最终将从事观测宇宙学——使用专门的探测器和望远镜研究宇宙的起源和发展。分析句子结构可知，该空引导一个非限制性定语从句，且从句中缺少主语；先行词为 Cynthia，指人，所以应用关系代词 who 引导。故填 who。

2．考查冠词。句意：我父亲是物理学家，母亲是天文学家。根据空前 My father is a physicist、并列连词 and，且空后名词 astronomer 为元音音素开头的单词，故此处填不定冠词 an，表示泛指。故填 an。

3．考查代词。句意：但没有一个孩子想成为他们的父母那样。根据空前介词 like 和空后名词 parents 可知，此处填形容词性物主代词作定语。故填 their。

4．考查时态。句意：当她还是个孩子的时候，她利用业余时间尝试父亲的研究设备。这里考查谓语动词，主语 She 与 spend 为主动关系，再根据空后时间状语 when she was a child 可知，此处填所给动词的过去式。故填 spent。

5．考查名词。句意：在某种程度上，她感谢自己短暂的注意力是因为她天生好奇：“我总是在找东西。”根据空前 for her natural 可知，此处填所给形容词的名词形式，curiosity，表“好奇”，为不可数名词，在本句中作介词后宾语，符合句意。故填 curiosity。

6．考查介词。句意：在过去的几年里，Cynthia 一直在寻找宇宙早期存在的迹象，从 130 多亿年前第一颗恒星的诞生到之前的“宇宙黑暗时代”。根据句意和空后“to the previous’ cosmic dark ages”可知，此处填介词 from；固定搭配“from… to… ”表示“从……到……”。故填 from。

7．考查非谓语。句意：为了达到这个目的，她自己制作了设备。分析句子成分并结合句意可知，此处填动词不定式，作目的状语，且句首时首字母应大写。故填 To achieve。

8．考查形容词。句意：作为一名物理学教授，她专注于利用新颖的无线电技术，探索当今宇宙之外的遥远过去。根据空前形容词性物主代词 its 和空后名词 past 可知，此处填所给名词的形容词形式，在本句中作定语。故填 distant。

9．考查形容词最高级。句意：自 2017 年以来，Cynthia 和她在麦吉尔大学的团队一直在地球上最偏远、最安静的两个地方设计和安装射电望远镜，以便最好地听到宇宙最早的呻吟声。根据空前 most remote 和并列连词 and 可知，此处填所给形容词的最高级。故填 quietest。

10．考查非谓语。句意：自 2017 年以来，Cynthia 和她在麦吉尔大学的团队一直在地球上最偏远、最安静的两个地方设计和安装射电望远镜，以便最好地听到宇宙最早的呻吟声。分析句子成分并根据空前介词 at 可知，此处填动名词，作介词 at 的宾语。故填 hearing。

Passage 2

（2024·上海格致中学·校考）HELSINKI — China plans to launch an exoplanet observatory (系外行星天文台) in 2028 ____1____ the aim of making a breakthrough detection of ____2____ potential second Earth.

Around 5,000 exoplanets _____3_____ (find) since 1995, but no Earth-sized planets in the habitable zones of sun-like stars have been spotted.

Earth 2.0, or ET, ____4____ (propose) by the Shanghai Astronomical Observatory under the Chinese Academy of Sciences (CAS), intends to use six telescopes to observe about 2 million stars in the Kepler mission star field and other larger nearby regions, continuously ____5____ (monitor) for transits of so-called exo-Earths over four years.

The mission is now targeting launch in 2028. The spacecraft will be launched to Sun-Earth Lagrange point 2, 6____ will provide a stable orbit, a constant view of deep space, and reduced interference (干扰) from Earth.

While Earth- like planets have been detected, these have been found in _____7_____ (relative) short orbits around quite bright stars or low- mass red dwarfs (红矮星), giving off strong radiation. ET will be able to stare at _____8 (it) target areas of sky for long periods. This extended observation time will allow it to detect planets with much ____9 (long) orbital periods in the habitable zones around sun-like stars, and thus potentially pick up _____10_____ (signal) of exo-Earths.

【答案】

1．with　2．a　3．have been found　4．proposed　5．monitoring　6．which　7．relatively　8．its　9．longer　10．signals

【导语】本文是一篇说明文。文章介绍了中国计划在2028年发射一个系外行星天文台，旨在实现对潜在的第二地球的突破性探测。

1．考查介词。句意：中国计划在2028年发射一个系外行星天文台，旨在实现对潜在的第二地球的突破性探测。with the aim of是固定短语，意为“以……为目的”。故填with。

2．考查冠词。句意：中国计划在2028年发射一个系外行星天文台，旨在实现对潜在的第二地球的突破性探测。根据句意，表示“一个潜在的第二地球”，泛指，且potential是发音以辅音音素开头的单词，应用不定冠词a修饰。故填a。

3．考查时态语态和主谓一致。句意：自1995年以来，已经发现了大约5000颗系外行星，但尚未发现类似太阳恒星的宜居带中的地球大小的行星。find(发现)是分句中谓语动词，与主语exoplanets之间是被动关系，句中有时间状语“since 1995”，描述从过去持续到现在的动作，应使用现在完成时态，又因主语是复数名词，谓语动词也应使用复数形式。综上，谓语应用现在完成时的被动语态，复数形式。故填have been found。

4．考查非谓语动词。句意：由中国科学院上海天文台提出的“地球2.0”或“ET”，打算使用六台望远镜观测开普勒任务星场和其他附近较大区域的大约200万颗恒星，连续四年监测所谓的系外地球的凌日现象。“(propose) by the Shanghai Astronomical Observatory under the Chinese Academy of Sciences (CAS)”作后置定语，propose(提出)是非谓语动词，与其逻辑主语Earth 2.0, or ET之间是被动关系，用过去分词表被动。故填proposed。

5．考查非谓语动词。句意：由中国科学院上海天文台提出的“地球2.0”或“ET”，打算使用六台望远镜观测开普勒任务星场和其他附近较大区域的大约200万颗恒星，连续四年监测所谓的系外地球的凌日现象。“(monitor) for transits of so-called exo-Earths over four years”作伴随状语，monitor(监测)是非谓语动词，与其逻辑主语Earth 2.0, or ET之间是主动关系，用现在分词表被动。故填monitoring。

6．考查定语从句。句意：航天器将被发射到日地拉格朗日点2，它将提供一个稳定的轨道，一个对深空的恒定视野，并减少来自地球的干扰。“_____ will provide a stable orbit, a constant view of deep space, and reduced interference from Earth”为非限制性定语从句，修饰先行词Sun-Earth Lagrange point 2，关系词指代先行词在从句中作主语，指物，应用关系代词which引导。故填which。

7．考查副词。句意：虽然已经探测到了类地行星，但这些行星都是在相当明亮的恒星或低质量红矮星周围相对较短的轨道上发现的，这些恒星发出强烈的辐射。提示词修饰形容词short，用副词relatively作状语，意为“相对地”。故填relatively。

8．考查代词。句意：ET将能够长时间盯着它的目标天空区域。提示词修饰名词词组target areas of sky，用形容词性物主代词its作定语。故填its。

9．考查形容词比较级。句意：这种延长的观测时间将使它能够探测到类似太阳恒星周围宜居带中轨道周期长得多的行星，从而可能捕捉到系外地球的信号。根据句中“This extended observation time”可推知，延长的观测时间能够探测到类轨道周期长得多的行星，表示“长得多的”应用形容词比较级longer，作定语。故填longer。

10．考查名词。句意：这种延长的观测时间将使它能够探测到类似太阳恒星周围宜居带中轨道周期长得多的行星，从而可能捕捉到系外地球的信号。可数名词signal作宾语，结合复数名词“exo-Earths”可知，多个系外地球的信号，用复数。故填signals。

Passage 3

（2024·上海华二附中·校考）阅读下面短文，在空白处填入 1 个适当的单词或括号内单词的正确形式。

Since the beginning of time, exploring the Universe has been a dream of humankind. Human ____1____ (curious) has fuelled interest in exploring and discovering new worlds, pushing the boundaries of ____2____ known, and expanding scientific and technical knowledge.

States and space agencies ____3____ (work) on space exploration since the first space launch. The first space launch led to the first human space flight, ____4____ led to the first moonwalk. Nowadays focus has shifted to joint human and robotic missions, near - Earth asteroids (小行星), Mars and destinations beyond our own solar system.

Space exploration and the innovation ____5____ (involve) in it are essential drivers for opening up new areas in space science and technology. That produces new partnerships ____6____ develops capabilities that create new opportunities for ____7____ (address) global challenges. Space exploration also motivates young people ____8____ (pursue) education and careers in science, technology, engineering and mathematics (the STEM disciplines).

Though the precise nature of future benefits from space exploration is not easily predefined (预先确定), current trends suggest that significant advantage may ____9____ (find) in areas such as new materials, health and medicine, transportation and computer technology. As the benefits of space exploration and innovation become ____10____ (well) known, increasingly more countries and non - governmental entities are interested in engaging in exploration and innovation.

【答案】

1．curiosity　2．the　3．have been working　4．which　5．involved　6．and　7．addressing

8．to pursue　9．be found　10．better

【导语】这是一篇说明文。主要介绍了空间探索和创新的发展及其作用。

1．考查名词。句意：人类的好奇心激发了人们探索和发现新世界的兴趣，推动了已知世界的边界，增加了科学和技术知识。分析句子结构，空处应用名词形式作句子主语，curiosity 是名词，表示“好奇心”。故填 curiosity。

2．考查冠词。句意：人类的好奇心激发了人们探索和发现新世界的兴趣，推动了已知世界的边界，增加了科学和技术知识。结合语意，此处表示人类的好奇心推动了已知世界的边界，特指已知世界，应用定冠词 the。故填 the。

3．考查时态。句意: 自第一次太空发射以来，各国和空间机构一直致力于空间探索。句中 since 表示“自从”，引导时间状语从句，主句应用现在完成时，且本句强调 work 这一动作一直是正在进行的，应用现在完成进行时，主语 States and space agencies 是复数，谓语动词应用原形形式。故填 have been working。

4．考查定语从句。句意：第一次太空发射引领了第一次人类太空飞行，这引发了第一次月球行走。分析句子结构，空处引导非限制性定语从句，修饰前边的整个句子，关系词在从句中作主语，应用 which 引导从句。故填 which。

5．考查非谓语动词。句意：空间探索及包含在内的创新是开辟空间科学和技术新领域的重要推动力。分析句子结构，空处作非谓语动词，involve 与逻辑主语 innovation 之间是被动关系，应用过去分词形式作后置定语。故填 involved。

6．考查连词。句意：这就产生了新的伙伴关系并发展了为应对全球挑战创造新机遇的能力。分析句子结构，produces 与 develops 为句子的并列谓语，结合语意，前后表示并列关系，应用连词 and 连接。故填 and。

7．考查非谓语动词。句意: 这就产生了新的伙伴关系并发展了为应对全球挑战创造新机遇的能力。空处作介词 for 的宾语，应用动名词形式。故填 addressing。

8．考查非谓语动词。句意：空间探索还激励年轻人在科学、技术、工程和数学（STEM 学科）方面追求教育和事业。motivate sb. to do sth.为固定短语，表示“激励某人做某事”，所以空处应用不定式形式。故填 to pursue。

9．考查语态。句意：虽然未来空间探索带来的好处的确切性质尚不容易确定，但目前的趋势表明，在新材料、健康和医学、运输和计算机技术等领域可能会发现巨大的优势。分析句子结构，空处在 that 引导的宾语从句中作谓语，find 与主语 significant advantage 之间是被动关系，应用被动语态，情态动词 may 后接动词原形形式。故填 be found。

10．考查副词比较级。句意: 随着空间探索和创新的好处变得更加为人所知，越来越多的国家和非政府实体对从事探索和创新感兴趣。结合语意，空间探索和创新的好处更加为人所知，所以更多的国家和非政府组织对其感兴趣，所以空处应用副词的比较级形式。故填 better。

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