

University of Petroleum & Energy Studies – Management Entrance Test
Sample Paper 2016

UPES-MET is an objective type test. The UPES-MET has four sections, each section having thirty five questions. The total 140 questions are to be attempted over 2 hrs and 30 mins. The test structure is given below;

Sections	No. of Questions
General English: Reading Comprehension, Verbal Reasoning, Verbal Ability	35
Quantitative, Data Interpretation & Data Sufficiency	35
General Awareness: General Knowledge, Current Affairs, Business Scenario	35
Analytical & Logical Reasoning	35
Total No.of Questions	140

Time: 1000 – 1230 Hours

Duration: 2 hrs 30 mins

DATE OF EXAMINATION (UPES-MET): 13 March 2016

SAMPLE QUESTIONS

A few sample questions are given below for the guidance of the candidates in the preparation. These are illustration purpose only. They do not necessarily indicate the types or the difficulty levels of questions or the number of questions in each section that can be in the actual test.

Section I – General English

I. Reading Comprehension

Some modern anthropologists hold that biological evolution has shaped not only human morphology but also human behavior. The role those anthropologists ascribe to evolution is not of dictating the details of human behavior but one of imposing constraints - ways of feeling, thinking, and acting that "come naturally" in archetypal situations in any culture. Our "frailties" - emotions and motives such as rage, fear, greed, gluttony, joy, lust, love-may be a very mixed assortment quality: we are, as we say, "in the grip" of them. And thus they give us our sense of constraints.

Unhappily, some of those frailties our need for ever-increasing security among them are presently maladaptive. Yet beneath the overlay of cultural detail, they, too, are said to be biological in direction, and therefore as natural to us as are our appendixes. We would need to comprehend thoroughly their adaptive origins in order to understand how badly they guide us now. And we might then begin to resist their pressure.

- The author implies that control to any extent over the "frailties" that constrain our behavior is thought to presuppose
 - That those frailties and adaptive are recognized as currently beneficial and adaptive
 - That there is little or no overlay of cultural detail that masks their true nature.
 - That there are cultures in which those frailties do not "come naturally" and from which such control can be learned
 - A full understanding of why those frailties evolved and of how they function now
- It can be inferred that in his discussion of maladaptive frailties the author assumes that
 - Evolution does not favor the emergence of adaptive characteristics over the emergence of maladaptive ones
 - Changes in the total human environment can outpace evolutionary change.

- C. Maladaptive characteristics, once fixed, make the emergence of other maladaptive characteristics more likely
- D. The designation of a characteristic as being maladaptive must always remain highly tentative
3. The primary purpose of the passage is to present
- A. A position on the foundations of human behavior and on what those foundations imply
 - B. A theory outlining the parallel development of human morphology and of human behavior
 - C. A diagnostic test for separating biologically determined behavior pattern from culture - specific detail
 - D. An overview of those human emotions and motive's that impose constraints on human behaviour
4. Which of the following most probably provides an appropriate analogy from human morphology for the "details" versus "constraints" distinction made in the passage in relation to human behaviour?
- A. The ability of most people to see all the colors of the visible spectrum as against most peoples inability to name any but the primary colors
 - B. The ability of even the least fortunate people to show compassion as against people's inability to mask their feelings completely
 - C. The ability of some people to dive to great depths as against most people's inability to swim long distance
 - D. The greater lung capacity of mountain peoples that helps them live in oxygen-poor air as against people's inability to fly without special apparatus.

II. Verbal Reasoning

1. All German philosopher, except for Marx, are idealists.

From which of the following can the statement above be most properly inferred?

- A. Aside from the philosopher Marx, if someone is a German, then he or she is an idealist.
 - B. Marx is the only non-German philosopher who is an idealist.
 - C. If a German is an idealist, then he or she is a philosopher, as long as he or she is not Marx.
 - D. Marx is not an idealist German philosopher.
2. Bill earns more commission than does Sandra. But since Andrew earns more commission than does Lisa, it follows that Bill earns more commission than does Lisa.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- A. Andrew earns more commission than Bill
 - B. Sandra earns more commission than Lisa
 - C. Sandra earns more commission than Andrew
 - D. Sandra and Andrew earn the same amount of commission
3. During the SARS days, about 23,500 doctors who had treated SARS sufferers died and about 23,670 doctors who had not engaged in treatment for SARS sufferers died. On the basis of those figures, it can be concluded that it was not much more dangerous to participate in SARS treatment during the SARS day than it was not to participate in SARS treatment.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- A. Counting deaths among doctors who had participated in SARS treatment in addition to deaths among doctors who had not participated in SARS treatment
- B. Expressing the difference between the numbers of deaths among doctors who had treated SARS sufferers and doctors who had not treated SARS suffers as a percentage of the total number of deaths
- C. Separating deaths caused by accidents during the treatment to SARS suffers from deaths caused by infect of SARS suffers.
- D. Comparing death rates per thousand members of each group rather than comparing total numbers of deaths

III. Sentence Correction

Directions: The sentence correction question presents a sentence, all or part of which is underlined. Beneath the sentence you will find five ways of phrasing the underlined part. The first of these repeats the original; the other four are different. If you think the original is best, choose the first answer; otherwise choose one of the others.

This sentence correction question tests correctness and effectiveness of expression. In choosing your answer, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, and sentence construction. Choose the answer that produces the most effective sentence; this answer should be clear and exact, without awkwardness, ambiguity, redundancy, or grammatical error.

1. The Navy used the nuclear submarine accident off the coast of Hawaii to show that everyone must be held responsible for their actions.
 - A. to show that everyone must be held responsible for their actions.
 - B. to demonstrate their belief that everyone must be held responsible for their actions.
 - C. to show that everyone must be held responsible for his actions.
 - D. to signal how no one should be able to get away with committing acts of terrible negligence.
2. I never fail to get frustrated on the golf course: nonetheless, I always resolve to continue my involving in the game.
 - A. on the golf course: nonetheless, I always resolve to continue my involving in the game.
 - B. on the golf course: nonetheless I always resolve to continue my involvement in the game.
 - C. on the golf course; nonetheless, I always resolve to continue my involvement in the game.
 - D. on the golf course; nonetheless I always resolve to continue my involvement in the game.
3. Each of the movies were great and the choice for the best one among all three was very difficult indeed.
 - A. were great and the choice for the best one among all three was very difficult indeed.
 - B. was great and the choice for the best one among all three was very difficult indeed.
 - C. were great and the choice for the best one between all three was very difficult indeed.
 - D. was great and the choice for the best one between all three was very difficult indeed.
4. The employees viewed the work-sharing plan with hostility, having feared that it will undermine the seniority system and negatively affect their retirement benefits.
 - A. having feared that it will undermine
 - B. fearing that it would undermine
 - C. having the fear that it would undermine
 - D. feared that it would undermine
5. In many coastal New England towns, the fisherman still operates as they have for generations, displaying and selling their catch dockside at the end of each day.
 - A. the fisherman still operates as they have
 - B. the fisherman still operates as was done
 - C. fishermen still operate as they have done
 - D. the fisherman still operates as he has

IV. Verbal Ability – Spellings (pick the correct spelling out of the 4 options)

- | | | | | |
|----|-------------------|--------------------|---------------------|---------------------|
| 1. | A.
Miselaneous | B.
misellaneous | C.
Miscellaneous | D.
miscellaneous |
| 2. | A.
Sufficient | B.
sufficient | C.
Sufficient | D.
sufficeint |
| 3. | A.
Receive | B.
receive | C.
Receive | D.
resieve |
| 4. | A.
Opportunity | B.
oppottunity | C.
Opportunity | D.
oppourtunity |
| 5. | A.
Necessity | B.
necessity | C.
Necessity | D.
necesety |

V. Word Relationship Test

1. levee : flood

- | | | | |
|------------------|-----------------------|-----------------------|--------------------|
| A.
dam : lake | B.
armour : helmet | C.
helmet : injury | D.
water : tide |
|------------------|-----------------------|-----------------------|--------------------|

2. color : spectrum

- | | | | |
|---------------------|--------------------|---------------------|---------------------|
| A.
verse : rhyme | B.
tone : scale | C.
noise : waves | D.
waves : sound |
|---------------------|--------------------|---------------------|---------------------|

3. extort : obtain

- | | | | |
|-----------------------|----------------------|------------------------|----------------------|
| A.
purify : strain | B.
steal : borrow | C.
explode : ignite | D.
pilfer : steal |
|-----------------------|----------------------|------------------------|----------------------|

4. heel : foot

- A. beam : ship B. hand : palm C. stern : boat D. cruiser : vessel

5. slight : hurt

- A. lag : tardiness B. sound : noise C. time : lateness D. blind : light

VI. Verbal Critical Reasoning

1. There are 900 bottles to be filled. Jim and Molly working independently but at the same time take 30 minutes to fill the bottles. How long should it take Molly working by herself to fill the bottles?

Statement 1 -

Molly fills half as many bottles as Jim.

Statement 2 -

Jim would take 45 minutes by himself.

Which of the statements above make it possible to answer the question.

- A. Statement 1 alone is sufficient, but statement 2 alone is not sufficient.
B. Statement 2 alone is sufficient, but statement 1 alone is not sufficient.
C. Both statements together are sufficient, but neither statement alone is sufficient.
D. Each statement alone is sufficient.
2. Of the teams competing in the world archery championships, twenty percent are from Europe. Half as many are from the United States and one twentieth are from Africa. What fraction of teams are from neither Europe, the US or Africa.
- A. 13/20
B. 15/20
C. 13/15
D. 17/20

Section 2 - Quantitative, Data Interpretation & Data Sufficiency

- Karan and Arjun run a 100-metre race, where Karan beats Arjun by 10 metres. To do a favour to Arjun, Karan starts 10 metres behind the starting line in a second 100-metre race. They both run at their earlier speeds. Which of the following is true in connection with the second race?
 - Karan and Arjun reach the finishing line simultaneously.
 - Arjun beats Karan by 1 metre.
 - Arjun beats Karan by 11 metres.
 - Karan beats Arjun by 1 metre.
- A father and his son are waiting at a bus stop in the evening. There is a lamp post behind them. The lamp post, the father and his son stand on the same straight line. The father observes that the shadows of his head and his son's head are incident at the same point on the ground. If the heights of the lamp post, the father and his son are 6 metres, 1.8 metres and 0.9 metres respectively, and the father is standing 2.1 metres away from the post, then how far (in metres) is the son standing from his father?
 - 0.9
 - 0.75
 - 0.6
 - 0.45
- The price of a Maruti car rises by 30% while the sales of the car came down by 20%. What is the percent change in the total revenue?
 - 4
 - 2
 - + 4
 - 0
- Last year Mr Dubey bought two scooters. This year he sold both of them for Rs 30,000 each. On one, he earned 20% profit, and on the other he made a 20% loss. What was his net profit or loss?
 - He gained less than Rs 2000
 - He gained more than Rs 2000
 - He lost less than Rs 2000
 - He lost more than Rs 2000
- Two players A and B play the following game. A selects an integer from 1 to 10, inclusive of both. B then adds any positive integer from 1 to 10, both inclusive, to the number selected by A. The player who reaches 46 first wins the game. If the game is played properly, A may win the game if;
 - A selects 8 to begin with
 - A selects 2 to begin with

- C. A selects any number greater than 5
D. None of the above
6. The angle between the tangents drawn from the origin to the circle $(x - 7)^2 + (y + 1)^2 = 25$, is
- A. $\pi/8$
B. $\pi/6$
C. $\pi/3$
D. $\pi/2$
7. The number of ways in which n distinct objects can be put in to two different boxes is
- A. n^2
B. 2^n
C. $2n$
D. None of these
8. The number of zero's at the end of 70! is
- A. 16
B. 5
C. 7
D. 70
9. The number of ways dividing 20 persons in to 10 couple is
- A. $20! / 2^{10}$
B. C_{10}^{20}
C. $20! / (2!)^9$
D. None of these
10. James, Barbara and Charles are together 90 years old. Charles is the same age as James and Barbara together. How old is Barbara?
- I. James and Charles are together twice as old as Barbara.
II. In 15 years James will be half the age of Charles.
- There is sufficient information in order to solve the question:
- A. in I but not in II

- B. in II but not in I
- C. in I and II together
- D. in none of the statements

11. Sarah walked home from the railway station. It took her longer to walk the first half of the distance than it took for her to walk the second half of the distance. How long did it take Sarah to walk the whole distance?

- I. It took Sarah 30 minutes to walk the first half of the distance.
- II. Sarah walked the second half at an average speed of 1 km/h faster than she had walked the first half.

There is sufficient information in order to solve the question:

- A. in I but not in II
- B. in II but not in I
- C. in I and II together
- D. in none of the statements

DIRECTIONS for Questions 12 to 14: Read the Passage carefully, and then answer the following question.

Passage: The body mass index (BMI) is the ratio of a person's weight (in kilograms) to the square of his height (in metres). Obesity, defined as a BMI of more than 30, is a growing problem in many OECD countries, especially English-speaking ones. In 1999, 20 per cent of Britons were obese, compared with 7 per cent in 1980. America, though, has the biggest share of obese people: more than one-fifth of its citizens weigh in with a BMI of 30-plus.

12. The article states that more than 15% of Americans are obese.

- A. True
- B. False
- C. Cannot tell
- D. Information is insufficient

13. What is the correct formula for calculating the BMI of a person who weighs 55 kilograms and is 1.65 metres tall?

- 1) $55 + (1.65)^2$
- 2) $55 \times (1.65)^2$
- 3) $55 / (1.65)^2$
- 4) None of the above

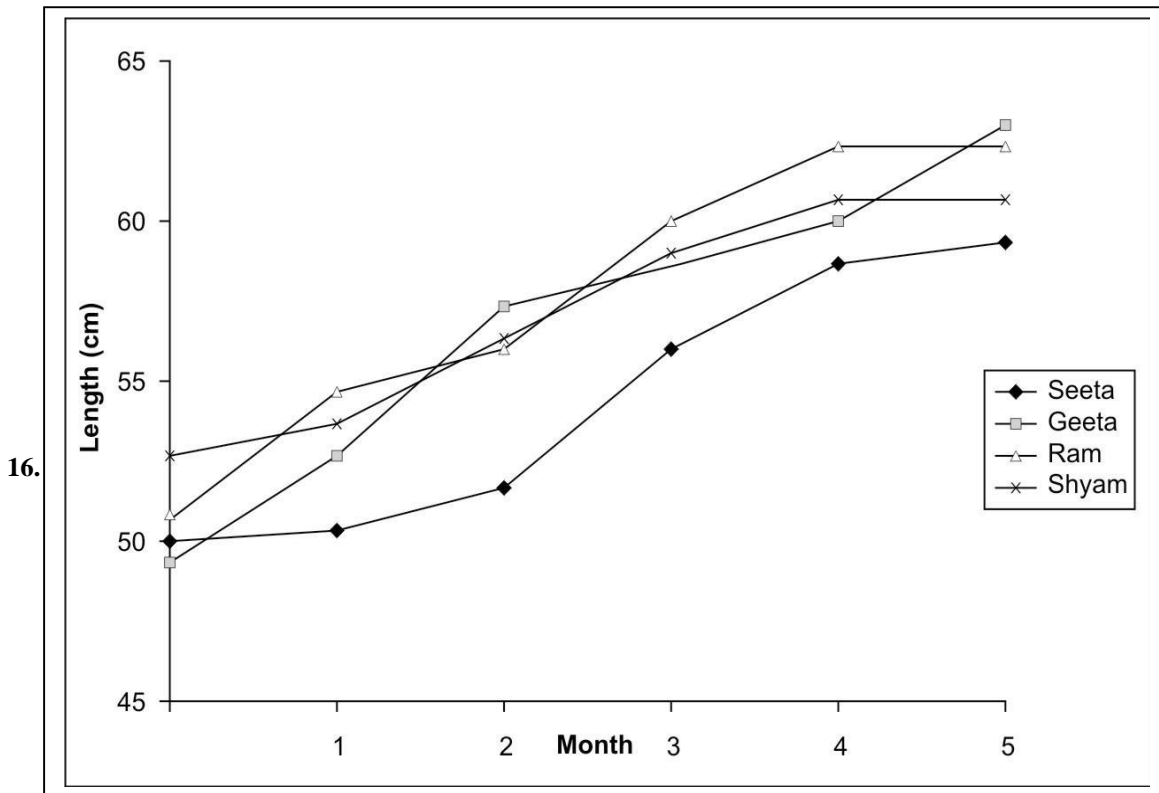
14. Given that the population of Great Britain is 59.8 million, how many Britons were obese in 1999?

- A. 11,196
- B. 119,600
- C. 1,196,000
- D. 11,960,000

15. What happened to the percentage of obese people in Britain between 1980 and 1999?

- A. More than doubled
- B. More than tripled
- C. Cannot tell
- D. None of the above

Directions for questions 16 to 19: From the Graph given below, answer the following questions:



17. Who grew at the fastest rate in the first two months of life?
- A. Geeta
 - B. Seeta
 - C. Ram
 - D. Shyam
18. The rate of growth during the third month was the lowest for
- A. Geeta
 - B. Seeta
 - C. Ram
 - D. Shyam
19. Among the four infants, who grew the least in the first five months of life?
- A. Geeta
 - B. Seeta
 - C. Ram
 - D. Shyam

Section 3: General Awareness: General Knowledge, Current Affairs, Business Scenario

1. Which of the following about ADRIAN (Advanced Data Research Institute) is correct
 - A. It is the ISRO centre to have the first women Ms. Geeta Vardhan
 - B. The centre is located in Hyderabad
 - C. Both are correct
 - D. Both are incorrect

2. In the HINI Virus what does the alphabet H and N stands for: I H stands for haemagglutinin II N stands for neuraminidase
 - A. Only I is correct
 - B. Only II is correct
 - C. Both are correct
 - D. Both are incorrect

3. According to the United Nations World Food Programme (WFP) report the country which tops the World Hunger Chart is—
 - A. Sierra Leone
 - B. India
 - C. Somalia
 - D. Pakistan

4. India has signed an agreement to procure Advanced Jet Trainer (Hawk) from which of the following countries?
 - A. USA
 - B. UK
 - C. France
 - D. Russia

5. Earth quake waves travel fastest in
 - A. Soil
 - B. Molten rock
 - C. Water
 - D. Flexible rock

6. What does ICANN stand for?

- A. Internet Corporation for Assigned Names and Numbers
- B. International Center for Agro Nutrients and Nourishment
- C. Indian Council for Algorithm, Numbers and Notions.
- D. International council for Approved Names and Numbers.

7. Entomology deals with:

- A. Plants
- B. Animals
- C. Insects
- D. Chemicals

8. Which river in the world carries the maximum volume of water?

- A. Amazon
- B. Nile
- C. Mississippi Missouri
- D. Ganga

9. 'Captain' is related to a 'Team' in the same way as 'Director' is related to

- A. Supervisor
- B. Employee
- C. Organisation
- D. Union
- E. Customer

10. The word "pradesh" occurs in the name of how many Indian states?

- A. 3
- B. 4
- C. 5
- D. 6

11. Which of these American politicians were born in the USA?

- A. Bobby Jindal
- B. Arnold Schwazenegger
- C. Madeline Albright
- D. Henry Hissinger

12. Which of these is not present in a mobile phone?

- A. Ring tone
- B. Number Pad
- C. Dial tone
- D. Caller identification

13. What structure in Calcutta opened to public in 1943 was made almost exclusively by steel supplies by Tata Iron and Steel Company?

- A. Victoria Memorial B. Howrah Bridge
C. Eden Gardens D. Birla Planetorium

14. The name of which delicacy means “pounded meat” in Persia?

- A. Kofta B. Korma
C. Kebab D. Keema

15. What pin number would you write to send a letter to the Indian prime minister?

- A.330033 B.220022 C.110011 D. 440044

16. Name the director who is working on a film on the life and times of Nelson Mandela?

- A. Shekhar Kapoor
B. Steven Spielberg
C. John Wu
D. Martin Scorsese

17. Who is the CEO of Microsoft?

- A. Bill Gates
B. Paul Allen
C. Larry Ellison
D. Steve Ballmer

18. Which among the following is the tallest tower in the world?

- A. Taipei 101
B. Burj Dubai
C. Shanghai World Financial
D. Petronas Tower 1

19. Name the new Scientific Advisor of India?

- A. C. Rangarajan
B. Shivshankar Menon
C. M Natarajan
D. V. Saraswat

6. The number missing in the series 2, 6, 12, 20, 30,, 56, 72 is
(a) 50 (b) 36 (c) 42 (d) 48
7. The value of 36 coins of 10 paise and 20 paise is Rs. 6.60. Find the number of 20 paise coins?
(a) 16 (b) 20 (c) 30 (d) 34

Directions (Qs. 8-10): Answer the questions based on the following information.

A young girl Roopa leaves home with x flowers, goes to the bank of a nearby river. On the bank of river, there are four places of worship standing in a row. She dips all the x flowers into the river, the number of flowers doubles. Then, she enters the first place of worship, offers y flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the second place of worship, offers y flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the third place of worship, offers y flowers to the deity. She dips the remaining flowers into the river, and again the number of flowers doubles. She goes to the fourth place of worship, offers y flowers to the deity. Now she is left with no flowers in hand.

8. If Roopa leaves home with 30 flowers, the number of flowers she offers to each deity is :
(a) 30 (b) 31 (c) 32 (d) 33
9. The minimum number of flowers that could be offered to each deity is :
(a) 0 (b) 15 (c) 16 (d) Cannot be determined
10. The minimum number of flowers with which Roopa leaves home is :
(a) 16 (b) 15 (c) 0 (d) Cannot be determined
11. Each family in a locality has at most two adults, and no family has fewer than 3 children. Considering all the families together, there are more adults than boys, more boys than girls, and more girls than families. Then the minimum possible number of families in the locality is :
(a) 4 (b) 5 (c) 2 (d) 3
12. If $\frac{a}{b} = \frac{1}{3}$, $\frac{b}{c} = 2$, $\frac{c}{d} = \frac{1}{2}$, $\frac{d}{e} = 3$, and $\frac{e}{f} = \frac{1}{4}$,
then what is the value of abc/def ?
(a) 3/8 (b) 27/8 (c) 3/4 (d) 27/4

13. Kalyani is mother-in-law of Veena, who is sister-in-law of Ashok. Dheeraj is father of Sundeep, the only brother of Ashok. How is Kalyani related to Ashok?
- (a) Mother-in-law (b) Aunt (c) Mother (d) Wife
14. Pointing to Manju in the photograph, Rajesh said, "She is the daughter of my grandfather's only son". How is Manju related to Rajesh?
- (a) Sister (b) Brother-in-law (c) Son (d) Mother