

Bachelor of Engineering (Mechanical Engineering) Examination 4th Year 2nd Semester-2025
Humanities

Total Marks: 100

Time: 3 hours

SECTION 1: SOCIOLOGY

A. Answer any TEN questions

10x2=20

1. Who is known as the father of sociology
2. What is meant by sustainable development in sociology?
3. Mention one social impact of the Industrial Revolution.
4. What is Fordism?
5. State any two differences between Fordism and Post-Fordism
6. What is cultural imperialism?
7. Give one example of cultural imperialism in today's global world.
8. Write any two characteristics of US cultural imperialism
9. What is meant by gender bias in science and technology?
10. Name one female scientist who challenged gender norms.
11. According to Emily Martin, how are sperm and egg typically portrayed in biology textbooks?
12. What is the main argument of Emily Martin's critique of the "sperm and egg" narrative?
13. How did Sociology in India develop?
14. What was Herbert Spencer's understanding of society?
15. What was the impact of industrial revolution?

B. Choose the correct option

1x10=10

1. Who coined the term 'sociology'?

- a) Karl Marx
- b) Max Weber
- c) Auguste Comte
- d) Emile Durkheim

2. Which of the following is a key feature of Fordism?

- a) Flexible production
- b) Mass customization
- c) Assembly line production
- d) Gig economy

3. The Industrial Revolution began in which country?

- a) Germany
- b) France

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- c) USA
- d) England

4. Which of the following is *not* one of the three pillars of sustainable development?

- a) Economic growth
- b) Cultural dominance
- c) Social equity
- d) Environmental protection

5. Cultural imperialism is best described as:

- a) Exporting goods to another country
- b) Spreading one's culture and dominating others
- c) Learning about other cultures
- d) Protecting local traditions

6. Which sociologist is associated with the idea of 'class struggle'?

- a) Emile Durkheim
- b) Max Weber
- c) Karl Marx
- d) Herbert Spencer

7. Post-Fordism is characterized by:

- a) Mass production
- b) Standardization
- c) Job specialization
- d) Flexibility in production and labor

8. Emily Martin criticized biological explanations of reproduction for being:

- a) Too focused on medical facts
- b) Gender-biased and metaphorical
- c) Based on outdated data
- d) Unscientific

9. Which of the following is an example of gender bias in technology?

- a) Use of gender-neutral AI
- b) Equal pay for men and women in STEM
- c) Voice assistants are often by female voices
- d) Balanced representation in tech ads

10. Which term refers to the unequal representation of women in science and tech fields?

- a) Technological development
- b) Gender mainstreaming
- c) Digital divide
- d) Gender gap

C. Match the following with the correct option (5x2=10)

Column A	Column B
a. Karl Marx	i. Mass Production system
b. Sustainable Development	ii. Communism
c. Gender and technology	iii. 18 th century
d. Fordism	iv. Equality in tech access
e. Industrial Revolution	v. Social Progress with nature

SECTION 2: ENGLISH**A. Answer the following questions 10x2=20**

1. Who are the main characters in "The Lost Jewels"?
2. Why did Mani leave her house with all her jewels?
3. Who is the author of the story 'The Lost Jewels'?
4. What was Bhusan Saha's profession?
5. What is the significance of the title "The Lost Jewels"?
6. What was the full name of Chandu's barber union?
7. How did Chandu's actions inspire others in nearby villages?
8. What did Chandu do with the money he earned from his new shop?
9. Who is the author of 'The The Barbers' Trade Union'?
10. Why did the village elders dislike Chandu's new business?

B. Read the passage carefully and answer the questions that follow. (2x5=10)

The journey of women in space has been both inspiring and challenging. In 1963, Soviet cosmonaut Valentina Tereshkova became the first woman to travel into space, marking a significant milestone in history. Her solo mission aboard *Vostok 6* showed that women could handle the physical and psychological demands of space travel. However, progress remained slow for years.

In the United States, NASA's astronaut program initially excluded women, citing physical requirements and combat experience as barriers. It wasn't until 1983 that Sally Ride became the first American woman in space. Since then, the participation of women in space missions has gradually increased. Women like Kalpana Chawla and Sunita Williams have become symbols of determination and excellence, contributing to scientific experiments, piloting missions, and spending months aboard the International Space Station.

Behind the scenes, countless women scientists, engineers, and mathematicians have played key roles. The story of Katherine Johnson, a mathematician whose calculations were crucial to the success of early NASA missions, gained wide recognition after the movie *Hidden Figures*. Today, space agencies like NASA and ESA are aiming for gender balance. The Artemis program, for example, plans to land the first woman on the Moon in the near future, showing a commitment to inclusion in space exploration.

As more women join the field, space missions are becoming more diverse—not just in gender, but also in nationality, discipline, and perspective. The sky is no longer the limit for women—it is just the beginning.

1. Who was Valentina Tereshkova, and why is she significant in the history of space exploration?
2. Why were women initially excluded from NASA's astronaut program?
3. Mention any two contributions made by women astronauts or scientists in space missions.
4. Who was Katherine Johnson, and what role did she play in space research?
5. How is the Artemis program aiming to promote gender inclusion in space exploration?

C. In not more than 50 words write a précis on the contribution of women in space (10)

D. Choose the correct option (10x1=10)

1. **Who was the first woman to travel into space?**
 - a) Sally Ride
 - b) Valentina Tereshkova
 - c) Sunita Williams
 - d) Kalpana Chawla
2. **Which space agency did Valentina Tereshkova fly for?**
 - a) NASA
 - b) ESA
 - c) ISRO
 - d) Soviet Space Program
3. **What year did Sally Ride become the first American woman in space?**
 - a) 1969
 - b) 1975
 - c) 1983
 - d) 1990
4. **Why were women initially excluded from NASA's astronaut program?**
 - a) Lack of technical knowledge
 - b) Physical requirements and combat experience
 - c) Social restrictions
 - d) Language barriers
5. **Which Indian-origin astronaut is known for her long-duration space missions?**
 - a) Valentina Tereshkova

- b) Sally Ride
 - c) Sunita Williams
 - d) Mae Jemison
6. **What was Katherine Johnson's role at NASA?**
- a) Astronaut
 - b) Pilot
 - c) Mathematician
 - d) Physicist
7. **Which movie brought attention to the contributions of Black women mathematicians at NASA?**
- a) Gravity
 - b) Hidden Figures
 - c) The Martian
 - d) Apollo 13
8. **What is the aim of NASA's Artemis program?**
- a) Launch a Mars mission
 - b) Land a woman and a man on the Moon
 - c) Build a space hotel
 - d) Send robots to Saturn
9. **Kalpana Chawla was associated with which country's space program?**
- a) India
 - b) Russia
 - c) United States
 - d) France
10. **According to the passage, what does the growing participation of women in space reflect?**
- a) Cost-cutting efforts
 - b) A need for faster missions
 - c) Growing diversity and inclusion
 - d) New training rules

E. You are a final-year engineering student applying for an internship at a reputed technology firm. Draft a one-page CV (10)

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