1. Unwanted bias places unprivileged groups at systematic advantage and privileged groups at systematic disadvantage
   1. False
2. Fairness metric “Statistical Parity Difference” is used when your data encodes structural biases
   1. True
3. Group fairness partitions a population into groups defined by protected attributes and seeks for some statistical measure to be equal across groups, while Individual Fairness seeks for similar individuals to be treated similarly.
   1. True
4. Removing protected attributes/features such as (race, gender, age, caste, etc) from your data set will effectively eliminate bias
   1. False
5. When is AI model referred as "black box" ?
   1. It is impenetrable as it gives no view of it's operations and workings
6. What is the common goal of introducing statistical independence between the predicted label and the protected attributes.
   1. Mitigate Bias
7. What is/are sources of bias in AI & Machine Learning?
   1. Over sampling or under sampling
   2. Prejudice in historic data
   3. User generated bias
8. Bias in an AI model's decision is always bad and should be eliminated
   1. False
9. Fairness metric “Equal Opportunity Difference” is used when the bias comes from sampling and not from the data itself
   1. True
10. Protected attributes are universal and are not application specific
    1. False
11. Which of the following bias mitigation algorithms included in opensource toolkit "AI Fairness 360" reduces bias by manipulating the training data prior to training
    1. Reweighing
12. In the AIF360 [interactive demo](https://aif360.mybluemix.net/data), if you check for bias on the Compass data set after applying the Reweighing pre-processing algorithm, for the protected attribute of sex, the disparate impact metric measures
    1. 0.59 for the original data set and 0.95 for the debiased data set
13. In the AIF360 interactive demo, if you check for bias on the Compass data set after applying the Adversarial Debiasing in-processing algorithm, for the protected attribute sex, the disparate impact metric measures
    1. 0.59 for the original data set and 0.93 for the debiased data set
14. Which of the following bias mitigation algorithms included in opensource toolkit "AI Fairness 360" reduces bias in a model during its training
    1. Adversarial debiasing
15. Which of the following bias mitigation algorithms can be applied to predicted labels?
    1. Reject option classification
16. If we only had access to the prediction or classification model and not to the entire data set then we have to use post-processing bias mitigation algorithm
    1. True
17. There are no tradeoffs between bias & accuracy meaning that reducing bias may will not have an impact on your model accuracy.
    1. False
18. After what time can we stop checking bias drift for a deployed application
    1. Bias drift should always be continuously checked
19. What is the recommended action if drift with respect to fairness metrics is observed in a classification model with future data?
    1. Re-train and perform appropriate bias mitigation with the latest data available
20. Is healthcare cost a good proxy for actual health on an average in the United States?
    1. No, because white patients tend to use the healthcare system more compared to other demographic groups.
21. We check for and mitigate bias with respect to \_\_\_\_\_\_\_\_\_\_ in the medical care management application discussed.
    1. Race
22. The following features are used for modeling in the in the medical care management application discussed.
    1. Demographics such as age, gender, active duty status
23. If disparate impact measures 0.48 on your data set this is indicative of
    1. Presence of bias in the outcomes with respect to the privileged and unprivileged groups
24. What are the methods used for bias mitigation in the medical care management application? Choose any of the following **two** options
    1. Reweighing (pre-processing)
    2. Prejudice remover (in-processing)
25. Which of the following average odds difference metric values indicates better equity in terms of the classifier error across the two groups considered?
    1. 0.0
26. In the application discussed, which algorithm resulted in the the best tradeoff between prediction accuracy and bias mitigation?
    1. Reweighing Algorithm (pre-processing)