## Direction

1) Choose the option that completes the sentence correctly:
   "..... is a fibrin degradation product that can be significantly elevated in patients with disseminated intravascular coagulation (DIC)"
   a. D-dimer
   b. Aspartate aminotransferase (AST)
   c. Alanine aminotransferase (ALT)
   d. Erythrocyte sedimentation rate (ESR)

2) What are common symptoms of COVID-19?
   a. A new, continuous cough
   b. Fever
   c. Tiredness
   d. All of the above

3) Which category is at higher risk of developing serious illness from COVID-19?
   a. Children
   b. Older adults and patients with comorbidity
   c. Adolescences
   d. Europeans

4) Which biomarker is typically elevated in COVID-19 patients with liver damage?
   a. D-dimer
   b. ESR
   c. C-reactive protein (CRP)
   d. All of the above

5) Choose the option that completes the sentence correctly: "The likelihood of developing liver toxicity as a complication of COVID-19 is about ..... times higher in severely infected patients"
   a. 0.5
   b. 0.8
   c. 1.76
   d. 6

6) Which of the following could be prognostic factors for COVID-19 patients?
   a. Elevated ALT, AST, lactate dehydrogenase (LDH), D-dimer, CRP, and total bilirubin (TBIL) levels and lower levels of albumin
   b. Elevated ALT, AST, LDH, and lower levels of D-dimer, CRP, TBIL, and albumin
   c. Elevated ALT, AST, LDH without alteration of other markers
   d. None of the above

7) Which statement on the expression of ACE2 receptors is correct?
   a. Expression is only found in the lungs
   b. Expression is found in the lungs and kidneys
   c. Small amounts are expressed in the human hepatocyte
   d. None of the above

8) Which statement on the relationship between COVID-19 cases and liver biomarkers is correct?
   a. There is no difference between severe and non-severe cases of COVID-19
   b. Higher levels of ALT, AST, LDH, CRP, D-dimer, TBIL, and low levels of albumin are observed in severe cases of COVID-19
   c. All liver biomarkers are elevated in severe cases of COVID-19
   d. None of the above

9) Which statement on the elevation of liver enzymes due to COVID-19 infection is correct?
   a. The elevation is due to the invasion of hepatocytes by the virus
   b. The elevation is due to prescribed drugs
   c. Both virus invasion and medications are involved
   d. None of the above

10) Which statement about sepsis is correct?
    a. Sepsis is another severe complication in COVID-19 patients
    b. Laboratory data analysis mostly reveal hyperbilirubinemia, acidosis, high lactate, coagulopathy, and thrombocytopenia in COVID-19 patients in the ICU
    c. Sepsis is one of the causes of liver injury during infection with SARS-Cov-2.
    d. All of the above

11) Which statement on the relationship between liver function tests and the severity of COVID-19 infection is correct?
    a. There is no relationship
    b. The results are higher in non-severe compared to severe cases
    c. The results in both severe and non-severe cases are equally high
    d. The results are higher in severe compared to non-severe cases

12) Which combination of databases was systematically searched in the study?
    a. Medline and Scholar
    b. Medline, Scopus, Embase, and Web of Science
    c. Medline, Scopus, and Web of Science
    d. Medline, Scopus, Web of Science, and Scholar
    Choose the option that completes the sentence correctly:

13) "The most common observations from the laboratory findings of COVID-19 patients were increased ……..…, CRP, ……..…, and D-dimer levels reported in ……..…, 18, ……..…, and 17 articles, respectively"
    a. ESR; LDH; 9; 18
    b. LDH; ESR; 9; 18
    c. ESR; LDH; 18; 9
    d. LDH; ESR; 18; 9

14) Choose the option that completes the sentence correctly: "The prevalence of mortality in ……..….. and ……..….. COVID-19 patients was ……..….. (95% CI: 0-1) and ……..….. (95% CI: 45-66), respectively"
    a. Severe; non-severe, 0%, 55%
    b. Non-severe, severe; 0%; 55%
    c. Severe; non-severe; 0%; 5%
    d. Non-severe; severe; 0%; 5%

15) Which serum level is low in patients with severe COVID-19 infection?
    a. AST
    b. Albumin
    c. ALT
    d. TBIL

16) Which experimental drug causes significant hepatotoxicity in the treatment of COVID-19 infection?
    a. Oseltamivir
    b. Remdesivir
    c. Hydroxychloroquine
    d. None of the above

17) Choose the option that completes the sentence correctly: "…….. levels of …… might be caused by a broader expression of ACE2 receptors in cardiac blood vessels"
    a. Increased; ESR
    b. Increased; LDH
    c. Decreased; ESR
    d. Decreased; LDH

18) The level of which biomarker can be used as a prognostic factor to indicate the risk of most common opportunistic infections?
    a. CRP
    b. AST
    c. ALT
    d. LDH

19) Choose the option that completes the sentence correctly: "The CRP levels were ….. in ….. than ….. patients, and a CRP level >10 mg/dl could be indicative of bacterial infection"
    a. Higher; non-severe; severe;
    b. Lower; non-severe; severe
    c. Higher; severe; non-severe
    d. Lower; severe; non-severe

20) Which of the following is not observed in COVID-19 patients with liver damage?
    a. Increased level of D-dimer
    b. Increased level of ESR
    c. Decreased level of albumin
    d. Decreased level of CRP