Below is one model paper of English for AAI ATC executive exam:

Q. 1-7. Read the following paragraph and answer the following questions.
"A strong Social Security cover is essential for organizations and the Nation as a whole to achieve competitiveness", said Mr. Harish Rawat, Minister of State for Labour & Employment, Government of India, the Chief Guest at the Seminar on Human Resource & Employee Relation – In context of Global Competitiveness organised by Confederation of Indian Industry (CII).
He also mentioned that the issue of 'flexibility' has to be seen in a larger perspective of social responsibilities of both the government and employers and added that while the Government is trying to bring a human face to the reforms in the labour sector, the Industry, Government and the Trade Unions have to work together for bringing inclusive growth which is the need of the hour for resurgent & resilient Indian economy.

Mr Arun Maira, Member Planning Commission shared his experience at the Tata Group on how the Management and employees together created the enterprise with spirit of principles. Speaking on the mid term appraisal by the Planning Commission, he said that the stress is on how to bring labour reforms which is more inclusive. He outlined the 3 broad areas where the views of all industry associations have converged were Administration of laws – which is simple and effective; Need to have flexibility / innovative solutions in case of labour intensive seasonal products and lastly, labour being under the concurrent list, more leeway should be given to states to enact legislations in consultations with their stakeholders as people have a right to organise themselves.

Mr Lalit Bhasin, Chairman, CII National Committee on Legal Services and Seminar Chairman in his Theme Address said that as per the World Bank Report around 80 -90 Million people would join the workforce in the next one decade and it will be extremely important to keep the pace in reform process and endorsed the view of Hon'ble Minister that Industry and Government together have to do much.

Earlier Mr Jagdish Khattar, Chairman, CII Industrial Relation Council & CMD of Carnation Auto India Private Limited in his Welcome remarks said that the Human Resources Team has assumed a great significance in organizing capability building for competitiveness and added that harmonious employee relations are essential for corporate survival and growth. He also suggested that organizations should have internal and not multiple unions and legislation should be there for workers protection and not job protection.

Giving a global perspective on the subject, Mr Stephen J Hirschfeld, Senior Partner, Curiale Hirschfeld Kraemer LLP & CEO, Employment Law Alliance ,San Francisco, CA said that there is an urgent need to bring uniformity in labour laws particularly keeping in view that MNCs as employers need to know what laws are applicable. In India each state has different set of labour laws. A wide gamut of issues in industrial relations were discussed at the day's session which included reforms in labour laws, expectations from employers, how competitiveness of India Inc can be enhanced and the Government's response to the changing business environment and on being a model employer and the speakers included leading luminaries from the legal and the corporate sector. The programme was well attended by over a hundred delegates from a cross section of the industry from across the country.

Q. 1 What has triggered mid term mid term appraisal at planning commission?
a. Commission has decided to do so in the wake of 6th pay commission.
b. It was the need of th hour to keep employees and employer relationship at even keel.
c. This appraisal is a part of to bring more radical labour reforms.
d. Cant be determined from the paragraph.

Q. 2 Which of the following word is most similar to the term 'inclusive' as used in the paragraph.
a. in toto
b. incorporating
c. myopic
d. incinerate

Q.3 At present which organisation Arun Maira is attached with?
a. Tata Group
b. CII
c. Planning commission
d. Cant be answered.

Q.4 why it is important to keep the pace in reform process on?
a. Soon other priorities would take the precedence.
b. In the wake of 80 -90 Million people joining workforce it is imperative to keep the reform work going.

c. It is a must to give India Global Competitiveness edge
d. Both b and c.

Q.5 Human Resources Team has assumed a great significance in organizing capability building for competitiveness because:
a. Today's employee is more versatile then his predecessors
b. For HR it is important to maintain a cordial rapport with employees as latter loosing their faith in an organisations vales.
c. Recession has forced this on HR to take that extra effort
d. None of these

Q.6 Which if the follwoing was the main agenda of the seminar.
a. Labour Reforms with Social security.
b. expectations from employers
c. how competitiveness of India Inc can be enhanced with more impetus
d. None of these

Q. 7 What is the opposite of 'gamut' as used in the paragraph.
a. pan approach
b. spur
c. one specific
d. pedigree

Directions (8-12) : Which of the phrases (I), (2), (3) and (4) given below each statement should replace the phrase printed in bold in the sentence to make it grammatically correct ? If the sentence is correct as given and 'No correction is required mark (5) as the answer.

8. One of the greatest actors **pass away** in his sleep at dawn today.
(a) passed away
(b) is pass' away
(c) passing away
(d) was passed away
(e) No correction required

9. In light of the current scenario people should think of saving money **rather** spending it.
(a) more of
(b) because then
(c) rather than
(d) rather of
(e) No correction required

10. In every society there **will always be** a struggle between the rich and the poor.
(a) will always being
(b) is always being
(c) be always
(d) is always be
(e) No correction required

11. As he **was keen in** doing in doing social work, he established'an NGO for the benefit of the downtrodden.
(1) is eager
(b) was keen on
(c) was eager
(d) is keen on
(e) No correction required

12. I am **very thanking to** you for helping me get through this situation.
(a) greatly thanking for
(b) great thankful to
(c) very thanking for
(d) very thankful to
(e) No correction required

Q. 13-22: Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is '5'. (Ignore the errors of punctuation, if any).

13. One of the best way (l}/ of improving (2) / your English is to (3)/ read the language. (4)/ No error (5)

14. I was halting (1)/ at the station for (2)/ the train to arrive when (3)/ suddenly there was a loud noise. (4)/ No error (5)

15. I reached (1)/ lately for the meeting (2)/ as I got (3)/ stuck in traffic. (4)/ No error (5)

16. Unless you (1)/ work hard you (2 will not achieve (3)/ success in life. (4)/ No error (5)

17. The labourers working at (1)/ the construction site were (2)/ very tired and (3)/ wanted to rest. (4)/ No error (5)

18. As it was (1)/ the boss's birthday (2)/ all the employees wanted (3)/ to buy a gift to him. (4)/ No error (5)

19. Priya got a (1)/ new job and she (2)/ happily told everyone (3)/ about them. (4)/ No error (5)

20. Being new to the country (l)/ myself decided to first take a (2)/ quick tour around (3)/ the place I was staying. (4)/ No error (5)

21. Since I had bought (1)/ quite a few items (2)/ the store keeper smiles (3)/and gave me a discount. (4)/ No error (5)

22. After waiting for (1)/ a very long time (2)/ the man finally (3)/ returned home frustrated, (4)/ No .. error (5)

Ans:
1. d
2. a
3. d
4. d
5. d
6. a
7. c
8. a
9. c
10. e
11. b
12. d
13. 1
14. 1
15. 2
16. 5
17. 3
18. 4
19. 4
20. 2
21. 3
22. 5

Technical Side Questions:

1. Which of the following schemes have the best error performance with the same energy per bit?
   a. 16QAM   b. 16PSK c. QPSK
2. Same Antenna is used for Tx and Rx. Radar range related to Antenna gain as
   a. Directly prop. To G
   b. Direc. Prop. To sq. root of G

  c. Inversely prop to G
3. Thermal Noise in conductor related to B
  a. B
  b. 1/B
  c. B2
  d. Square root of B
4. A control system with feed back gain 0.1 and forward gain 10. What is the sensitivity of the system w.r.t the feed back system.
5. The value of 'k' for the system to be stable is. (6th degree Characteristic Eqn given)
6. Which of the following system is stable.
  a. As2 + Bs +C
  b. As2 - Bs +C
  c. As4 + B s3 +Cs+D
  d. -As2 - Bs -C
7. Linux OS based on which architecture
8. Comparison betweeb Macro and Subroutine
  a. Macro better that Sub Rtne with respect to storage time and execution time
  b. Vice versa
  c. Macro better that Sub Rtne with respect to execution time only
  d. Vice versa
9. Which of the following is a privileged instruction?
  a. MOV A B
  b. INT 21
  c. ADD A B
  d. IN 08
10. Which of the following instruction is not converted to binary by an Assebly Language Program?
  a. TRAP
  b. Interrupt
  c. Privilige instruction
  d. Sorry don't remember
11. In which type of machine can multiple tasks be done
  a. Virtual Machine
  b. Sorry don't remember
12. Which of the following has the highest distortion?
  a. A
  b. B
  c. AB
  d. C
13. Which of the following distortions occur in Class B push pull amplifier?
  a. Harmonic
  b. Intermodulation
  c. Phase
  d. Sorry don't remember
14. $\Theta(s)/T(s)$ of a rotational system (J,B,k regular notaions)
15. Schmitt Trigger with 3V & 1V UTP and LTP respectively. A sinusoidal input with 10V peak is fed as the input. The output swings between
16. Op-amp circuit given. Identify the circuit (Ans: Peak detector)
17. 6 bit binary ladder with 101001 as input (0= 0V , 1 = 10V). Output voltage is ------
18. Doppler Radar of 1125 MHz. Frequency of received echo is 125 MHz. The conclusion is
  a. Target also has a radar
  b. Target moving away
  c. Target approaching
19. Microprocessor cycles between
  a. Fetch and Execution operations.
  b. Fetch and Halt
20. Modulation index of an FM system with 2.5V, 500 Hz input and 5KHz deviation is
21. Routh's Criterion gives
  a. Number of roots on the LHS of S plane
  b. Number of roots on the RHS of S plane
22. For the system to be stable, the roots of the characteristic Equation must lie
  a. Left side of the S plane
  b. Right side of s plane
23. Impulse response h(t) of a system is

a. Inverse Laplace transform of Transfer Function
24. The output of a LTI system with Guassian process input is
      a. Gaussian
      b. Poisson
25. Spectral Density and Auto-Correlation are
      a. Laplace Transform pair
      b. Fourier Transform Pair.
26. A flex Klystron is a
      a. Microwave amp
      b. Microwave Oscillator
      c. Both amp and Oscillator
      d. High cavity tube
27. S Matrix related question.
28. Block diagram given
Oscillator(1MHz) à Divider (/ 10^6) à Schmitt Trigger à Flip Flop à. Output is
      a. Pulse Train of width 1 sec
      b. Pulse Train of width 2 sec
      c. Pulse Train of width 0.5 sec

1. In a communication system, noise is most likely to affect the signal

(a) at the destination

(b) In the channel

(c) in the information source

(d) at the transmitter

2. Indicate the false statement. Fourier analysis shows that the saw tooth

wave consist of

(a) fundamental and subharmonic sine waves

(b) a fundamental sine wave and an infinite number of harmonics

(c) fundamental and harmonic sine waves whose amplitude decreases with

the harmonic number

(d) sinusoidal voltages, some of which are small enough to ignore in

practice

3. One of the following types of noise becomes a great importance at high

frequencies. Is the

(a) random noise

(b) shot noise

(c) impulse noise

(d) transit-time noise

4.Indicate the false statement. The square of the thermal noise voltage

generated by a resistor is proportional to

(a) its temperature

(b) Its resistance

(c) Boltzmann's Constant

(d) the bandwidth over which it is measured

5.If the plate supply voltage for a plate modulated class C amplifier is V, the

maximum plate-cathode voltage could be almost as high as

(a)4v

(b)3v

(c)2v

(d)1v

6. Which one will be stable if characteristics equation is

(a) AS^2+BS+C

(b) AS^2-BS-C

(c) AS^4+BS^2+CS+D

(d) -AS^2+BS-C

7.When microwave follows curvature of the earth, this I know as

(a) fading

(b) Ducting

(c) troposphere scatter

(d) ionosphere reflection

8. Broadband long distance communications are originally made possible by

the advent of

(a) telegraph cables

(b) repeater amplifiers

(c) HF radio

(d) Geostationary satellites

9. Switching systems

(a) Improve the efficiency of data transfer

(b) are not used in data system

(c) require additional lines

(d) are limited to small data networks

10. Basic group B

(a) occupies the frequency range from 60 to 108 k hz

(b) consist of erect channels only

(c) is formed at the group translating equipment

(d) consist of five super group

11. In differential amplifiers, the common emitter current is made constant

(a) To make Ad (differential gain) very small

(b) To make Ac (common mode gain) very small

(c) To make the amplifier symmetrical

(d) To keep CMRR constant

12. Given BCD number 1001 0011, its decimal equivalent is

(a) 147

(b) 143

(c) 93

(d) 39

13. An amplifier has voltage gain of 50. this gain in db will be

(a) 17 db

(b) 31 db

(c) 34 db

(d) 68 db

14. In a E plane Tee, the output of the two rams are

(a) 180 degree out of phase

(b) In the same phase

(c) 90 degree out of phase

(d) none of these

15. waveguide are generally made of

(a) Aluminium

(b) Bronze

(c) Both (a) and (b)

(d) none of these

Answers

1.(b) 2.(a) 3.(d) 4.(a) 5.(a) 6.(a) 7.(b) 8.(b) 9.(a) 10.(a) 11.(b) 12.(c) 13.(c) 14.(a) 15.(c)